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Transportation

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49

PARTS 400 TO 999

Revised as of October 1, 1985

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code of federal regulations

Transportation

49

PARTS 400 TO 999

Revised as of October 1, 1985

CONTAINING
A CODIFICATION OF DOCUMENTS
OF GENERAL APPLICABILITY
AND FUTURE EFFECT

AS OF OCTOBER 1, 1985

With Ancillaries

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***Cite this Code CFR
thus: 49 CFR 420.1***

Explanation

The Code of Federal Regulations is a codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal Government. The Code is divided into 50 titles which represent broad areas subject to Federal regulation. Each title is divided into chapters which usually bear the name of the issuing agency. Each chapter is further subdivided into parts covering specific regulatory areas.

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Each volume of the Code is revised at least once each calendar year and issued on a quarterly basis approximately as follows:

Title 1 through Title 16.....	as of January 1
Title 17 through Title 27.....	as of April 1
Title 28 through Title 41.....	as of July 1
Title 42 through Title 50.....	as of October 1

The appropriate revision date is printed on the cover of each volume.

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The contents of the Federal Register are required to be judicially noticed (44 U.S.C. 1907). The Code of Federal Regulations is prima facie evidence of the text of the original documents (44 U.S.C. 1510).

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III). A list of CFR Titles, Chapters, and Parts and an alphabetical list of agencies publishing in the CFR are also included in this volume.

An index to the text of "Title 3—The President" is carried within that volume.

The Federal Register Index is issued monthly in cumulative form. This index is based on a consolidation of the "Contents" entries in the daily Federal Register.

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JOHN E. BYRNE,

Director,

Office of the Federal Register.

October 1, 1985.

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THIS TITLE

Title 49—TRANSPORTATION is composed of eight volumes. The contents of these volumes represent all current regulations codified under this title of the CFR as of October 1, 1985, except Chapter I—Research and Special Programs Administration (Parts 100-199) which is revised as of November 1, 1985.

The parts in these volumes are arranged in the following order: Parts 1-99, Subtitle A—Office of the Secretary of Transportation; Parts 100-177 and Parts 178-199, Chapter I—Research and Special Programs Administration (DOT); Parts 200-399, Chapter II—Federal Railroad Administration (DOT), and Chapter III—Federal Highway Administration (DOT); Parts 400-999, Chapter IV—Coast Guard (DOT), Chapter V—National Highway Traffic Safety Administration (DOT), Chapter VI—Urban Mass Transportation Administration (DOT), Chapter VII—National Railroad Passenger Corporation (AMTRAK), Chapter VIII—National Transportation Safety Board, and Chapter IX—United States Railway Association; Parts 1000-1199, Parts 1200-1299, and Part 1300 to End, all Chapter X—Interstate Commerce Commission.

In the volume containing Parts 100-177, see § 172.101 for the Hazardous Materials Table. The volume containing Parts 200-399 of this title contains the Federal Motor Carrier Safety Regulations, and a Subject Index to these regulations follows Chapter III. The Federal Motor Vehicle Safety Standards appear in Part 571.

For this volume Doris M. O'Keefe was the Chief Editor. The Code of Federal Regulations publication program is under the direction of Martha B. Girard, assisted by Robert E. Jordan.

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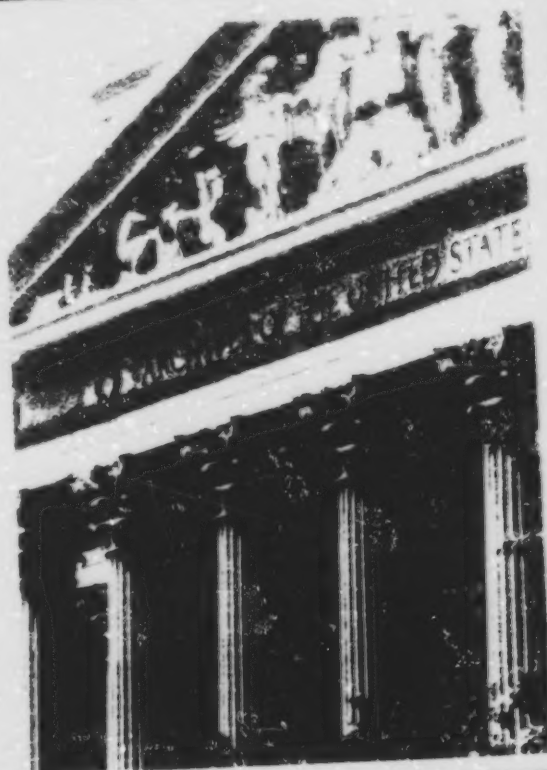
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(This book contains Parts 400 to 999)

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SUBCHAPTER A—CARGO CONTAINER AND ROAD VEHICLE CERTIFICATION FOR TRANSPORT UNDER CUSTOMS SEAL

PART 420—CONTAINER AND ROAD VEHICLE CERTIFICATION—GENERAL

Sec.

420.1 Purpose.

420.2 Application and purpose.

420.3 Definitions.

AUTHORITY: E.O. 11459, 3 CFR, 1966-1970 Comp., p. 781 (1969); and 49 CFR 1.46(f).

§ 420.1 Purpose.

This chapter establishes procedures for certifying containers and road vehicles in conformance with the Customs Convention on Containers (1956) (TIAS 6634) and the Customs Convention on the International Transport of Goods Under Cover of TIR Carnets (1959) (TIAS 6633) by applying the procedures and technical conditions set forth in the Annexes to these conventions as modified, amended, or otherwise supplemented from time to time.

[35 FR 12277, July 31, 1970, as amended at 39 FR 27669, July 31, 1974]

§ 420.2 Application and purpose.

(a) Certification of containers and road vehicles for international transport under Customs seal is voluntary. This chapter does not require certification of containers and road vehicles.

(b) The Customs Convention on the International Transport of Goods Under Cover of TIR Carnets (TIR Convention), January 15, 1959 (20 UST 184, TIAS 6633) requires that the approval of road vehicles be made by competent authorities of the country in which the owner or carrier is resident or established. The Customs Convention on Containers, May 18, 1956 (20 UST 301, TIAS 6334), requires that the approval of containers be made by competent authorities of the country in which the owner is resident or established or by those of the country where the container is used for the first time for transport under Customs seal. The procedures for applying for certification are contained in §§ 422.2, 423.2, and 424.2 of this chapter.

[39 FR 27669, July 31, 1974]

§ 420.3 Definitions.

For the purposes of this chapter:

(a) "Certifying Authority" means a nonprofit firm or association designated by the Commandant to certify containers and road vehicles for international transport under Customs seal.

(b) "Commandant" means the Commandant of the U.S. Coast Guard.

(c) "Container" means an article of transport equipment (liftvan, portable tank, or other similar structure including normal accessories and equipment when imported with the container and road vehicles), other than a vehicle or conventional packaging:

(1) Of a permanent character and accordingly strong enough to be suitable for repeated use;

(2) Specifically designed to facilitate the carriage of goods by one or more modes of transport, without intermediate reloading;

(3) Fitted with devices permitting its ready handling, particularly its transfer from one mode of transport to another;

(4) So designed as to be easy to fill and empty; and

(5) Having an internal volume of 1 cubic meter (35.3 cubic feet) or more.

(d) "Manufacturer" means an organization or person constructing containers and road vehicles for certification in accordance with this chapter.

(e) "Prototype" means a sample unit of a series of identical containers and road vehicles all built so far as practical under the same conditions.

(f) "Road vehicle" as defined in Chapter I, Article I of the Customs Convention on the International Transport of Goods Under Cover of TIR Carnets (TIR Convention), January 15, 1959 (20 UST 184, TIAS 6633), means not only any road motor vehicle but also any trailer or semitrailer designed to be drawn by such a vehicle.

(g) "Customs and TIR Plan" means the drawing of a container that illustrates each requirement in § 423.3a or § 424.4 of this subchapter.

[35 FR 12277, July 31, 1970, as amended at 39 FR 27669, July 31, 1974]

PART 421—CONTAINER AND ROAD VEHICLE CERTIFICATION—ADMINISTRATION

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421.1 Designated certifying authorities.

421.2 Designation of additional certifying authorities.

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Subpart F—Certificated Containers Not in Compliance—[Reserved]

AUTHORITY: E.O. 11459, 3 CFR, 1969-1970 Comp., p. 781 (1969); and 49 CFR 1.46(f).

Subpart A—Designation of Certifying Authorities

§ 421.1 Designated certifying authorities.

(a) The American Bureau of Shipping, 45 Broad St., New York, NY 10004.

(b) International Cargo Gear Bureau, Inc., 17 Battery Place, New York, NY 10004.

(c) The National Cargo Bureau, Inc., One World Trade Center, Suite 2757, New York, N.Y. 10048.

(d) Oceanographic Society, Inc., 17 Battery Place, New York, NY 10004.

[39 FR 27669, July 31, 1974]

§ 421.2 Designation of additional certifying authorities.

(a) The Commandant may designate as a certifying authority any nonprofit firm or association that he finds competent to carry out the functions of Subpart B of this part.

(b) Any designation may be terminated by the Commandant.

[39 FR 27669, July 31, 1974]

Subpart B—Functions of the Certifying Authority

§ 421.10 Examination of drawings.

Each Certifying Authority shall examine drawings and specifications submitted to it for containers to be certified under Part 422 of this chapter and shall advise the owner or manufacturer of the changes, if any, in design that must be made to make the container comply with the applicable provisions of § 422.3a of this subchapter.

[35 FR 12277, July 31, 1970, as amended at 39 FR 27669, July 31, 1974]

§ 421.11 Examination of containers and road vehicles.

(a) Each certifying authority must inspect each container and each road vehicle submitted for certification for compliance with the requirements contained in § 423.3a or § 424.4 of this subchapter as applicable.

(b) Each certifying authority must conduct the examination for containers by design type prescribed in § 422.4 of this subchapter. Each container must be in compliance with the requirements contained in § 422.3a of this subchapter.

[39 FR 27669, July 31, 1974]

§ 421.12 Certificate of approval by design type for a container.

A certifying authority issues a certificate of approval by design type for a

container that is approved in accordance with the procedures contained in §§ 422.3 and 422.4 of this subchapter.

[39 FR 27609, July 31, 1974]

§ 421.13 Certificate of approval for a container.

A certifying authority issues or renews a certificate of approval for an individual container that complies with the requirements contained in § 423.3a of this subchapter.

[39 FR 27609, July 31, 1974]

§ 421.14 Certificates of approval for road vehicles.

A certifying authority issues or renews a certificate of approval for an individual road vehicle that complies with the requirements contained in § 424.4 of this subchapter.

[39 FR 27609, July 31, 1974]

Subpart C—Fees

§ 421.30 Establishment of fees.

(a) Each Certifying Authority shall establish and file with the Commandant a schedule of fees for the performance of the certification procedures under this chapter. The fees shall be based on the costs (including transportation expense) actually incurred by the Certifying Authority. The fees are subject to approval by the Commandant prior to their use by the Certifying Authority.

(b) Each Certifying Authority shall furnish on request a schedule of its fees approved by the Commandant. In addition, the Commandant (Merchant Marine Safety), U.S. Coast Guard Headquarters, 400 Seventh Street SW., Washington, D.C. 20591, will furnish on request the schedules of approved fees for all the Certifying Authorities.

(c) If the Commandant approves an amendment to the approved fees for any Certifying Authority, he will cause a notice of this fact to be published in the FEDERAL REGISTER.

[35 FR 12277, July 31, 1970, as amended at 39 FR 27609, July 31, 1974]

Subpart D—Records and Reports

§ 421.30 Records maintained by a certifying authority.

(a) Each certifying authority shall maintain:

(1) A copy of each certificate of approval of containers by design type that is issued, together with a copy of the plans and application to which the approval refers;

(2) A record of each serial number assigned and affixed by the manufacturer to the containers manufactured under a design type approval;

(3) A copy of each individual certificate of approval of a container or road vehicle that is issued; and

(4) All applications submitted in accordance with the requirements contained in §§ 422.2, 423.2, or § 424.2 of this subchapter and any information submitted by a manufacturer for the certification of a container or a road vehicle.

(b) The Commandant or a representative of the Commandant may examine, at reasonable times, the certifying authority's files required by paragraph (a) of this section.

[39 FR 27609, July 31, 1974]

§ 421.31 Records to be furnished the Commandant.

Each certifying authority shall supply the Commandant (MHM), Room 8306, 400 Seventh Street SW., Washington, D.C. 20590, with:

(a) A copy of each issued certificate of approval for containers by design type and a copy of the plans and application to which the approval refers;

(b) A copy of each issued individual approval for a container or road vehicle; and

(c) Notification of each arrangement approved as an equivalent to the requirements of the Customs convention of the international transport of goods undercover of TIR carnets (TIR Convention), January 15, 1950 (20 UST 184, TIAS 633), as modified by applicable resolutions, as provided in §§ 422.3a(b), 423.3a(b), or § 424.4(b) of this subchapter.

[39 FR 27609, July 31, 1974]

§ 421.31a Meetings on program.

Each certifying authority's representative for certification functions shall meet after notice with the Commandant or his representatives to review their administration of the certification program.

[30 FR 27670, July 31, 1974]

§ 421.32 Reports by container manufacturer.

Each manufacturer shall forward to the appropriate certifying authority, quarterly or when otherwise requested:

- (a) The serial numbers assigned to containers manufactured under a Certificate of Approval by design type; and
- (b) An attestation that each container to which a serial number was assigned was manufactured in full compliance with the Certificate of Approval by design type.

[35 FR 12377, July 31, 1970, as amended at 30 FR 27670, July 31, 1974]

§ 421.33 Notification of certifying authority prior to container production.

The manufacturer shall notify the certifying authority before each production run of containers to be built pursuant to a certificate of approval by design type in order that the certifying authority can schedule any necessary inspection.

[30 FR 27670, July 31, 1974]

Subpart E—Appeal Provisions**§ 421.40 Appeal to Commandant.**

(a) Any manufacturer, carrier, or owner may within 30 days after he has been notified by a certifying authority of a determination, including any review provided, appeal the determination to the Commandant.

(b) Any determination which is appealed remains in effect pending a decision by the Commandant.

[30 FR 27670, July 31, 1974]

§ 421.41 Decision of Commandant final.

The decision of the Commandant on any matter appealed to him is final.

[35 FR 12377, July 31, 1970]

Subpart F—Certificated Containers Not in Compliance—[Reserved]**PART 422—PROCEDURES FOR APPROVAL OF CONTAINERS BY DESIGN TYPE****Sec.****422.1 General.****422.1a Eligibility.****422.1b Where to apply.****422.2 Application for approval.****422.3 Plan review.****422.3a Technical requirements for containers by design type.****422.4 Examination, inspection, and testing.****422.5 Approval plates.****422.6 Termination of approval.**

AUTHORITY: E.O. 11489, 3 CFR, 1966-70 Comp., p. 761 (1969); and 49 CFR 1.46(f).

§ 422.1 General.

The Certifying Authority shall, at the request of a manufacturer or an owner, evaluate containers for the approval by design type during the manufacturing stage.

[35 FR 12376, July 31, 1970]

§ 422.1a Eligibility.

Any manufacturer of containers that are being manufactured in a type series from a standard design and specifications so that each container has identical characteristics may apply for an approval by design type.

[30 FR 27670, July 31, 1974]

§ 422.1b Where to apply.

A manufacturer may apply for approval of a container by design type to a certifying authority of the country in which the owner is resident or established.

[30 FR 27670, July 31, 1974]

§ 422.2 Application for approval.

Each application by a manufacturer or an owner for certification of a container by design type must include:

(a) Four copies, each no larger than 3 feet by 4 feet, of the Customs and TIR plan;

(b) Customs and TIR plan number;

(c) Four copies of the specifications which include the following information:

(1) The name and address of the manufacturer or the owner; and

(2) A description of the container including the:

(i) Type of construction;

(ii) Dimensions;

(iii) Material of construction;

(iv) Coating system used;

(v) Identification marks and numbers; and

(vi) Tare weight;

(d) The location and date for inspection of the prototype; and

(e) A statement signed by the manufacturer that:

(1) A container of the design type concerned is available for inspection and approval by the certifying authority before, during, and after the production run;

(2) Notification will be given to the certifying authority of each change in the design before adoption; and

(3) Each container will be marked with:

(i) The metal plate required in § 422.5;

(ii) The identification numbers or letters of the design type assigned by the manufacturer; and

(iii) The serial number of the container assigned by the manufacturer.

[39 FR 27670, July 31, 1974]

§ 422.3 Plan review.

(a) A manufacturer who wants a container to be approved by design type must submit to the certifying authority the plans and specifications of the container.

(b) The certifying authority that examines the plans and specifications submitted in accordance with paragraph (a) of this section:

(1) Approves the plans and specifications in accordance with the requirements of § 422.3a and arranges to inspect a prototype in accordance with § 422.4; or

(2) Advises the manufacturer of any necessary changes to be made for compliance with the requirements of § 422.3a.

(c) If changes in design of the container are made during production but after approval of the plans and specifications by the certifying authority, the manufacturer must furnish "as-built" drawings of the container to the

certifying authority before an inspection of the prototype is made.

[39 FR 27670, July 31, 1974]

§ 422.3a Technical requirements for containers by design type.

(a) The plans and specifications of a container that are submitted in accordance with the requirements contained in § 422.3 and the one or more containers that are inspected in accordance with the requirements of § 422.4 must comply with the requirements of Annex 6, as modified by applicable resolutions, of the Customs Convention on the International Transport of Goods Under Cover of TIR Carnets (TIR Convention), January 15, 1959 (20 UST 184, TIAS 6633). Copies of Annex 6, as modified by applicable resolutions, may be obtained from the Coast Guard (MHM), Room 6306, 400 7th Street SW., Washington, D.C. 20500.

(b) If any of the requirements in articles 1 through 3 of annex 6 are not compatible with the technical requirements that insulated and refrigerator containers, furniture containers, tank containers, and containers specially built for carriage by air must fulfill in use, the certifying authority may approve other arrangements that are equivalent to the requirements in annex 6 and serve the purpose for which the certification is intended.

[39 FR 27670, July 31, 1974]

§ 422.4 Examination, inspection, and testing.

(a) Prior to the issuance of a Certificate of Approval by design type the Certifying Authority shall:

(1) Make a physical examination of one or more containers of the production series concerned.

(2) Assure himself as to the adequacy of the manufacturer's system to control quality of materials used, manufacturing methods, and finished containers.

(3) Require the manufacturer to make available to the Certifying Authority records of materials, including affidavits, furnished by suppliers.

(b) [Reserved]

(c) The Certifying Authority shall conduct such examinations, inspections, and tests of the production run containers as it deems necessary.

[35 FR 12278, July 31, 1970, as amended at 36 FR 27676, July 31, 1974]

§ 422.5 Approval plates.

(a) The manufacturer shall affix, in a clearly visible place, on or near one of the doors or other main openings of each container manufactured to the approved design, a metal approval plate measuring at least 20 centimeters (7.8 inches) by 10 centimeters (3.9 inches). The following shall be embossed on or stamped into the surface of the approval plate:

(1) "Approved for transport under Customs seal."

(2) "USA/(number of the certificate of approval)/(last two digits of year of approval)." (E.g. "USA/10001/70" means "United States of America, certificate of approval number 10001 issued in 1970.")

(3) Identification of the type of container and of the number of the container in the type series.

[35 FR 12278, July 31, 1970]

§ 422.6 Termination of approval.

Any container the essential features of which are changed shall no longer be covered by the design type approval. Such a container may be made available to a Certifying Authority for inspection and individual approval in accordance with Part 423 of this chapter. However, repairs in kind do not constitute a change of the essential features.

[35 FR 12278, July 31, 1970]

PART 423—PROCEDURES FOR INDIVIDUAL APPROVAL OF CONTAINERS

Sec.

- 423.1 General.
- 423.2 Application.
- 423.3 Eligibility.
- 423.3a Technical requirements for containers.
- 423.4 Approval of individual containers.
- 423.4a Certificate of approval.
- 423.5 Renewal of certificate.
- 423.6 Termination of approval.

AUTHORITY: E.O. 11489, 3 CFR, 1966-70 Comp., p. 781 (1969); and 49 CFR 1.40(f).

§ 423.1 General.

This part provides for the individual approval and certification of containers which are not manufactured under a Certificate of Approval by design type or are altered so as to void their design type approval.

[35 FR 12278, July 31, 1970]

§ 423.2 Application.

A written request for individual approval of a container may be made by the manufacturer, carrier, or owner to a Certifying Authority and must include the following:

- (a) Type of container.
- (b) Name and business address of applicant.
- (c) Identification marks and numbers.
- (d) Tare weight.
- (e) Nominal overall dimensions in centimeters.

(f) Type of construction and essential particulars of structure (nature of materials, parts which are reinforced, whether bolts are riveted or welded, and similar matters).

(g) Proposed location and date for inspection of container.

[35 FR 12278, July 31, 1970, as amended at 36 FR 27676, July 31, 1974]

§ 423.3 Eligibility.

Individual containers may be submitted for inspection by the owner to a certifying authority:

- (a) In the country in which the owner is a resident or established; or
- (b) In the country in which the container is used for the first time for transport under Customs seal.

[36 FR 27676, July 31, 1974]

§ 423.3a Technical requirements for containers.

(a) A container that is submitted for inspection for individual approval must comply with the requirements of Annex 6, as modified by applicable resolutions of the Customs Convention on the International Transport of Goods Under Cover of TIR Carnets (TIR Convention), January 15, 1959

(20 UST 184, TIAS 6533). Copies of Annex 6, as modified by applicable resolutions, may be obtained from the Coast Guard (MHM), Room 8306, 400 Seventh Street SW., Washington, D.C. 20590.

(b) If any of the requirements in Articles 1 through 3 of Annex 6 are not compatible with the technical requirements that insulated and refrigerator containers, furniture containers, tank containers, and containers specially built for carriage by air must fulfill in use, the certifying authority may approve other arrangements that are equivalent to the requirements in Annex 6 and serve the purpose for which the certification is intended.

[39 FR 27670, July 31, 1974]

§ 423.4 Approval of individual containers.

The certifying authority issues an individual certificate of approval, valid for 2 years, for each container that meets the requirements in § 423.3a.

[39 FR 27671, July 31, 1974]

§ 423.4a Certificate of approval.

A certificate of approval framed as required in Article 1-4 of Annex 6, Customs Convention on the International Transport of Goods Under Cover of TIR Carnets (TIR Convention), is evidence of approval if it remains sealed in the protective frame.

[39 FR 27671, July 31, 1974]

§ 423.5 Renewal of certificate.

A certificate of approval may be renewed if the Certifying Authority determines by inspection every 2 years that the container continues to comply with the applicable requirements in § 423.3a.

[39 FR 27671, July 31, 1974]

§ 423.6 Termination of approval.

Approval of a container terminates:

(a) Upon expiration of the certificate of approval;

(b) Upon a change in the container by a major repair or alteration of any of the essential features required in § 423.3a. Repairs by replacement in kind do not constitute a change of the essential features; or

(c) Upon a change of ownership.

[39 FR 27671, July 31, 1974]

PART 424—PROCEDURES FOR APPROVAL OF INDIVIDUAL ROAD VEHICLES

Sec.

424.1 General.

424.2 Application for approval.

424.3 Eligibility.

424.4 Technical requirements for road vehicles.

424.5 Approval of individual road vehicles.

424.6 Certificate of approval.

424.7 Renewal of certificate.

424.8 Termination of approval.

AUTHORITY: E.O. 11450, 3 CFR, 1966-1970 Comp., p. 781 (1969); and 49 CFR 1.46(f).

SOURCE: 39 FR 27671, July 31 1974, unless otherwise noted.

§ 424.1 General.

This part provides for the approval and certification of individual road vehicles that comply with the technical requirements in § 424.4.

§ 424.2 Application for approval.

A written request for approval of an individual road vehicle may be made by the manufacturer, owner, or carrier to a certifying authority and must include:

- (a) Type of vehicle;
- (b) Name and business address of owner or carrier;
- (c) Name of the manufacturer;
- (d) Chassis number;
- (e) Engine number (if applicable);
- (f) Registration number;
- (g) Particulars of construction;
- (h) Any photos or diagrams required by the certifying authority to facilitate approval; and
- (i) A proposed place and date for inspection of the road vehicle.

§ 424.3 Eligibility.

A road vehicle may be submitted for inspection by the manufacturer, owner, or carrier to a certifying authority of the country in which the manufacturer, owner, or carrier, respectively, is resident or established.

§ 424.4 Technical requirements for road vehicles.

(a) A road vehicle that is submitted for inspection for individual approval

must comply with the requirements of Annex 3, as modified by applicable resolutions, of the Customs Convention on the International Transport of Goods Under Cover of TIR Carnets (TIR Convention), January 15, 1959 (39 UST 184, TIAS 6633). Copies of Annex 3, as modified by applicable resolution, may be obtained from the Coast Guard (MHM), Room 8306, 400 Seventh Street SW., Washington, D.C. 20590.

(b) If any of the requirements in Articles 1 through 3 of Annex 3 are not compatible with the technical requirements that insulated vehicles, refrigerator vehicles, furniture vehicles, and tank vehicles must fulfill in use, the certifying authority may approve other arrangements that are equivalent to the requirements in Annex 3 and serve the purpose for which the certificate is intended.

§ 424.5 Approval of individual road vehicles.

The certifying authority issues a certificate of approval, valid for 2 years, to each road vehicle that complies

with the applicable requirements in § 424.4.

§ 424.6 Certificate of approval.

A certificate of approval must be kept on the vehicle as evidence of approval.

§ 424.7 Renewal of certificate.

A certificate of approval may be renewed if the certifying authority determines by inspection every 2 years that the vehicle continues to comply with the applicable requirements in § 424.4.

§ 424.8 Termination of approval.

Approval of a road vehicle terminates:

(a) Upon expiration of the certificate of approval;

(b) Upon a change in the road vehicle by a major repair or alteration of any of the essential features required in § 424.4. Repairs by replacement in kind do not constitute a change of the essential features; or

(c) Upon a change of ownership.

SUBCHAPTER B—SAFETY APPROVAL OF CARGO CONTAINERS**PART 450—GENERAL****Subpart A—General Provisions****Sec.**

- 450.1 Purpose.
- 450.3 Definitions.
- 450.5 General requirements and applicability.
- 450.7 Marking.

Subpart B—Procedures for Delegation to Approval Authorities

- 450.11 Application for delegation of authority.
- 450.12 Criteria for selection of Approval Authorities.
- 450.13 Granting of delegation.
- 450.14 Conditions of delegation.
- 450.15 Termination of delegation.
- 450.16 Withdrawal of delegation.

AUTHORITY: Sec. 4, 91 Stat 1475, 48 U.S.C. 1563, 49 CFR 1.46(n).

SOURCE: 45 FR 37213, June 2, 1980, unless otherwise noted.

Subpart A—General Provisions**§ 450.1 Purpose.**

This subchapter establishes requirements and procedures for safety approval and periodic examination of cargo containers used in international transport, as defined in the International Safe Container Act.

§ 450.3 Definitions.

(a) In this subchapter: (1) "Approval Authority" means a delegate of the Commandant authorized to approve containers within the terms of the convention, the International Safe Container Act and this subchapter.

(2) "Container" means an article of transport equipment:

(i) Of a permanent character and suitable for a repeated use.

(ii) Specially design to facilitate the transport of goods, by one or more modes of transport, without intermediate reloading.

(iii) Designed to be secured and readily handled, having corner fittings for these purposes.

(iv) Of a size that the area enclosed by the four outer bottom corners is either:

(A) At least 14 sq.m. (150 sq.ft.), or

(B) At least 7 sq.m. (75 sq.ft.) if it has top corner fittings. The term "container" includes neither vehicles nor packaging; however, containers when carried on chassis are included.

(3) "Convention" means the International Convention for Safe Containers (CSC) done at Geneva, December 2, 1972 and ratified by the United States on January 3, 1978.

(4) "District Commander" means the Coast Guard officer designated by the Commandant to command a Coast Guard District.

(5) "New Container" means a container, the construction of which began on or after September 6, 1977.

(6) "Existing Container" means a container that is not a new container.

[45 FR 37213, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

§ 450.5 General requirements and applicability.

(a) Every owner of a new or existing container used or offered for movement in international transport shall have the container approved in accordance with the procedures established by the Administration of any contracting party to the convention, except that existing containers need not be approved until September 6, 1982.

(b) Every owner of an approved container used or offered for movement in international transport who:

(1) Is domiciled in the United States and has the head office in the United States, or

(2) Is domiciled in a country which is not a contracting party to the convention but has the principal office in the United States, shall have the container periodically examined in accordance with Part 452 of this subchapter.

(c) Every owner of an approved container used or offered for movement in international transport who:

(1) Is domiciled in the United States but has the principal office in the jurisdiction of another contracting party to the convention, or

(2) Is domiciled in the jurisdiction of another contracting party to the con-

vention but has the principal office in the United States, but elects to have the container examined in accordance with the procedures prescribed by the United States, shall conform to Part 452 of this subchapter.

(d) Every owner of an approved container used or offered for movement in international transport who is neither domiciled in nor has the principal office in the jurisdiction of a contracting party to the convention, but elects to have the container examined in accordance with procedures prescribed by the United States, shall conform to Part 452 of this subchapter.

§ 450.7 Marking.

(a) On each container that construction begins on or after January 1, 1984, all maximum gross weight markings on the container must be consistent with the maximum gross weight information on the safety approval plate.

(b) On each container that construction begins before January 1, 1984, all maximum gross weight markings on the container must be consistent with the gross weight information on the safety approval plate no later than January 1, 1988.

(Approved by the Office of Management and Budget under OMB control number 2115-0094)

[40 FR 15562, Apr. 19, 1984]

Subpart B—Procedure for Delegation to Approval Authorities

§ 450.11 Application for delegation of authority.

(a) Any person or organization seeking delegation of authority to act as an Approval Authority may apply to the Commandant, (G-MVI), U.S. Coast Guard, Washington, D.C. 20593. Each application must be signed and certified by the applicant or, if the applicant is an organization, by an authorized officer of the organization. A list of delegated approval authorities may be obtained from the Commandant (G-MVI).

(b) The application must include the following information:

(1) Name and address, including place of incorporation, if a corporation.

(2) A description of the organization, including the ownership, managerial structure, organizational components and directly affiliated agencies and their functions utilized for supporting technical services.

(3) A listing of the basic technical services offered.

(4) A general description of the geographic area served.

(5) A general description of the clients being served or intended to be served.

(6) A description of the types of work performed by the applicant in the past, noting the amount and extent of such work performed within the previous three years.

(7) A description of the personnel to be utilized, indicating general background and qualifications, particularly for the surveyors to be involved in the actual witnessing of tests.

(8) A description of its means of assuring continued competence of its personnel.

(9) A detailed schedule of the fees proposed to be charged for the approval service.

(10) Evidence of financial stability.

(11) At least three business references who will furnish information regarding work performed by the applicant.

(12) A statement that the Coast Guard may inspect the applicant's facilities and records of approvals under the convention and these regulations.

(c) The application may contain any additional information the applicant deems to be pertinent.

(d) The applicant must furnish any additional information to evaluate the applicant's qualifications, if requested by the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard.

(e) Applications from foreign nationals or organizations must contain an affidavit stating that the agency responsible for implementing the Convention in their country has delegated to the applicant an approval authority, and that it also delegates similar authority to United States citizens or organizations having delegations from

the United States. The affidavit must also contain the name and address of the agency to which U.S. citizens or organizations must apply for delegation as an approval authority.

[45 FR 37213, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

§ 450.12 Criteria for selection of Approval Authorities.

(a) The Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard selects persons or organizations in accordance with the following criteria:

(1) The person or organization is independent of manufacturers and owners in that:

(i) It has sufficient breadth of interest or activity, so that the loss or award of a specific contract to approve containers would not be a substantial factor in the financial well-being of the organization.

(ii) The employment status of the personnel of the organization is free from influence or control of manufacturers, owners, operators or lessors of containers.

(2) The person or organization has demonstrated the ability to competently carry out the procedures required for approval.

(3) The person or organization has an acceptable degree of financial security.

[45 FR 37213, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

§ 450.13 Granting of delegation.

(a) The Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard acts on applications for delegation within 60 days of receipt.

(b) If an applicant for delegation does not provide sufficient information with regard to all the criteria for delegation, the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard denies the application. A denial of an application on this basis is without prejudice to the submission of a new or amended application.

(c) If an applicant satisfies all the criteria for delegation the Chief, Merchant Vessel Inspection Division,

Office of Merchant Marine Safety, U.S. Coast Guard sends the applicant a letter of delegation, and assigns to the Approval Authority an alphabetic Approval Authority Identification code.

(d) If an applicant fails to satisfy all the criteria for delegation, the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard gives the applicant written notice of denial of his application. The notice contains all the reasons for the denial. The applicant may contest the denial by submitting additional oral or written evidence in support of its qualifications. Upon review of the evidence, the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard notifies the applicant of the final decision.

[45 FR 37213, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

§ 450.14 Conditions of delegation.

(a) The following conditions are part of every delegation: (1) The Approval Authority shall use only testing equipment that it has determined by inspection to be suitable for the purpose.

(2) All approval numbers issued by the Approval Authority must contain the identification code, assigned to the Approval Authority by the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard.

(3) Each Approval Authority shall maintain the following records for a period of at least 15 years from the date of approval. (When the Approval Authority's delegation is withdrawn before such time, the records relating to the approvals issued within the prior 15 years must be turned over to the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard):

(i) Each notice of approval issued.

(ii) A copy of the application and final approved drawings (if applicable) to which each approval refers.

(iii) The manufacturer's serial numbers and the owner's identification numbers of all containers covered by each approval.

(4) Each Approval Authority shall establish and make available to the public a schedule of fees for the approval services performed under these regulations. The fees must not be disproportionate to the costs (including transportation expense, if any) actually incurred.

(5) The Approval Authority shall grant the Coast Guard the right to inspect records and shall cooperate in the conduct of such inspections.

(6) The Approval Authority shall comply with any other term or condition stated in its letter of delegation.

[45 FR 37213, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

§ 450.15 Termination of delegation.

(a) An Approval Authority may voluntarily terminate its delegation by giving written notice of its intent to the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard. This notice must contain the date on which the termination is to be effective.

[45 FR 37213, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

§ 450.16 Withdrawal of delegation.

(a) The Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard withdraws a delegation if: (1) It is determined that the application for delegation contained a material misrepresentation.

(2) An Approval Authority fails to comply with a condition of delegation.

(3) An Approval Authority is incompetent.

(b) When a delegation is withdrawn, the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard gives to the Approval Authority:

(1) Written notice of the facts or conduct believed to warrant the withdrawal.

(2) Opportunity to submit oral or written evidence.

(3) Opportunity to demonstrate or achieve compliance with the applicable requirement.

[45 FR 37213, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

PART 451—TESTING AND APPROVAL OF CONTAINERS

Subpart A—Approval of Existing Containers

Sec.

451.1 Application for approval.

451.3 Action by Approval Authority.

451.5 Resubmission or appeal.

451.7 Alternative approval of existing containers.

Subpart B—Approval of New Containers

451.11 Application for approval-general.

451.12 Application for approval by design type.

451.13 Action by approval authority—approval by design type.

451.14 Alternative approval of new containers by design type.

451.15 Application for individual approval.

451.16 Action by approval authority—individual approval.

451.18 Review of denials of approval.

Subpart C—Safety Approval Plate

451.21 Safety approval plate required.

451.23 Plate specifications.

451.25 Required information.

AUTHORITY: Sec. 4, 91 Stat. 1475, 46 U.S.C. 1503, 49 CFR 1.46(n).

SOURCE: 45 FR 37214, June 2, 1980, unless otherwise noted.

Subpart A—Approval of Existing Containers

§ 451.1 Application for approval.

(a) Any owner of an existing container may apply for approval to the Commandant (G-MVI), U.S. Coast Guard, Washington, D.C. 20593 or to any Approval Authority.

(b) Each application must include the following for each container:

(1) Date and place of manufacture.

(2) Manufacturer's identification number, if available.

(3) Maximum operating gross weight capacity.

(4) Allowable stacking weight for 1.8G (1.8 x Gross weight in kilograms or pounds).

NOTE: This value is the total load the container is designed to support when subjected to a vertical acceleration of 1.8G.

(5) A statement that the owner possesses documentary evidence that:

(i) Container of this type has been safely used in marine or inland transport for a period of at least two years; or

(ii) The container was manufactured to a design type which had been tested and found to comply with the technical conditions set out in Annex II to the convention with the exception of those technical conditions relating to the end-wall and side-wall strength tests; or

(iii) The container was constructed to standards that were equivalent to the technical conditions set out in Annex II to the convention with the exception of those technical conditions relating to end-wall and side-wall strength tests.

(6) A certification by the owner, or, if the owner is a corporation, partnership or unincorporated association, by a person authorized to make such statements for the organization, that the information provided in the application is true and correct.

[45 FR 37214, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

§ 451.3 Action by Approval Authority.

(a) The Approval Authority (or the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard, if the application was submitted to the Coast Guard) issues to the owner a notice of approval or notifies the owner in writing that approval is denied, setting forth the deficiencies causing denial. Notification of approval entitles the owner to affix a safety approval plate to each container after an examination of each container concerned has been carried out in accordance with Part 452 of this subchapter. In the case of an application submitted to the Coast Guard, the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard acts on the application within 30 days of receipt of the application.

[45 FR 37214, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

§ 451.5 Resubmission or appeal.

(a) Upon receipt of a denial of approval for certain containers, an owner may correct the noted deficiencies and

resubmit the application without prejudice.

(b) An applicant aggrieved by a decision of an approval authority may obtain review of the decision by the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard. The decision of the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard is a final agency action.

[45 FR 37214, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

§ 451.7 Alternative approval of existing containers.

(a) Existing containers that do not qualify for approval under this subpart may be presented for approval under the provisions of Subpart B of this part. For such containers, the requirements of Subpart B of this part relating to the end and sidewall strength tests do not apply. Upon showing that the containers have performed satisfactorily in service, the applicant may omit the presentation of drawings and testing, other than the lifting and floor strength test, if permitted by the approval authority.

Subpart B—Approval of New Containers

§ 451.11 Application for approval-general.

(a) An owner of a new container, or a manufacturer acting on behalf of an owner, may apply for approval to any approval authority.

§ 451.12 Application for approval by design type.

(a) For approval of new containers by design type, each application must include the following:

(1) Engineering drawings and plans showing platform, end framing, welds and hardware, connections of cross-members, top and bottom rails, roof bows, detailed subassemblies of major structural components and attachments, and any other plans and drawings required by the approval authority.

(2) Design and material specifications including type and size of materi-

als. Material specifications of the safety approval plate must also be given.

(3) The manufacturer's identification number assigned to each container in the type series.

(4) The identification code assigned to each container in the series by the owner, lessee, of bailee responsible for maintenance.

(5) The written assurance from the manufacturer, that the manufacturer will:

(i) Produce to the approval authority such containers as the approval authority may wish to examine;

(ii) Advise the approval authority of any change in the design or specification and await its approval before affixing the Safety Approval Plate to the container;

(iii) Affix the Safety Approval Plate to each container in the design type and to no others;

(iv) Keep a record of containers manufactured to the approved design type containing at least the manufacturer's identification numbers, date of delivery, and names and addresses of customers to whom the containers are delivered; and

(v) Supply to the approval authority the information contained in paragraphs (a)(3) and (4) of this section if not available at the time of original application.

(6) A statement as to whether this design type has been examined by any approval authority previously and judged unacceptable. Affirmative statements must be documented with the name of the approving authority, the reason for nonacceptance, and the nature of modifications made to the design type.

§ 451.13 Action by approval authority-approval by design type.

(a) The approval authority arranges with the manufacturer, with notification to the owner, to witness the prototype tests required by the convention, and to examine any number of containers that the approval authority considers appropriate. Upon witnessing successful completion of prototype tests and examination of several containers the approval authority issues to the owner, a notice of approval

which authorizes the attachment of safety approval plates to the containers. Absence of individual inspections will not relieve the manufacturer of any responsibility to maintain proper quality control. If a prototype container fails to pass the tests, the approval authority may require testing of as many further representative containers as necessary to ensure the adequacy of the design.

§ 451.14 Alternative approval of new containers by design type.

(a) New containers manufactured before June 16, 1978 without being approved under the preceding section may be approved by submission to an approval authority of an application corresponding to that required under § 451.1(b) for existing containers. All new containers so approved must have safety approval plates affixed and receive their first periodic examination in accordance with the procedures prescribed in § 452.3 by January 1, 1985.

[47 FR 50496, Nov. 8, 1982]

§ 451.15 Application for individual approval.

(a) For approval of new containers by individual approval, each application must include the following:

(1) The manufacturer's identification number.

(2) The identification code of the owner, lessee, or bailee responsible for maintenance of the container.

§ 451.16 Action by approval authority-individual approval.

(a) The approval authority arranges with the manufacturer or owner to witness testing in accordance with Annex II to the convention. Upon witnessing successful completion of the tests, the approval authority issues to the owner a notice of approval that authorizes the attachment of a safety approval plate.

§ 451.18 Review of denials of approval.

(a) An applicant aggrieved by a decision of an approval authority may obtain review of the decision by the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard. The deci-

sion of the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard is a final agency action.

[45 FR 37214, June 2, 1980, as amended at 47 FR 50496, Nov. 8, 1982]

Subpart C—Safety Approval Plate

§ 451.21 Safety approval plate required.

(a) The safety approval plate must be supplied by the owner or manufacturer.

§ 451.23 Plate specifications.

(a) The safety approval plate must be of the size and in the format specified in the appendix to Annex I to the convention.

(b) The safety approval plate must be:

(1) Designed to withstand and remain legible after a 15 minute exposure to a medium intensity fire producing a temperature of 1,000°F (540°C), when mounted on the specified material of construction of the container.

(2) Designed to resist the corrosive effects of its environment, both at sea and ashore, so as to remain legible for the working life of the container.

(3) Designed to have a legible life expectancy equal to or greater than the life expectancy of the container to which the plate is affixed.

§ 451.25 Required information.

(a) The safety approval number appearing on line 1 of the safety approval plate must be of the form "USA/(approval number, which includes the approval authority identification code)/(year in which approval was granted)."

(b) The date upon which approval was granted must be the same for all containers of a design-type or type-series covered by one notice of approval.

(c) The safety approval number must be the same for all containers of a design-type or type-series covered by one notice of approval.

(d) The owner's International Organization for Standardization (ISO) alpha numeric identification numbers may be used in place of the manufacturer's identification numbers on line 3 of the safety approval plate. If owner's identification numbers are used and the manufacturer's are available, the owner shall keep records correlating the owner's identification numbers used with the manufacturer's number. If a container marked with owner's identification numbers changes ownership, and the owner's identification number is changed as a result, the new owner must add the new owner's identification number, following the original owner's identification number on line 3 of the safety approval plate. In the event that the new owner's identification number cannot be legibly added to line 3 of the safety approval plate following the original owner's identification number, the new owner is authorized to put a new safety approval plate on the freight container provided that all the information contained on the original safety approval plate is retained in the owners files.

turer's identification numbers on line 3 of the safety approval plate. If owner's identification numbers are used and the manufacturer's are available, the owner shall keep records correlating the owner's identification numbers used with the manufacturer's number. If a container marked with owner's identification numbers changes ownership, and the owner's identification number is changed as a result, the new owner must add the new owner's identification number, following the original owner's identification number on line 3 of the safety approval plate. In the event that the new owner's identification number cannot be legibly added to line 3 of the safety approval plate following the original owner's identification number, the new owner is authorized to put a new safety approval plate on the freight container provided that all the information contained on the original safety approval plate is retained in the owners files.

PART 452—EXAMINATION OF CONTAINERS

Sec.

452.1 Periodic examination required.

452.3 Elements of periodic examinations.

452.5 Examinations made in conjunction with other inspections.

452.7 Continuous examination program.

452.9 Elements of a continuous examination program.

AUTHORITY: Sec. 4, 91 Stat. 1475, 46 U.S.C. 1503, 49 CFR 1.46(n).

SOURCE: 45 FR 37216, June 2, 1980, unless otherwise noted.

§ 452.1 Periodic examination required.

(a) Except as provided for in § 452.7, each owner of an approved container subject to this part shall examine the container or have it examined in accordance with the procedures prescribed in § 452.3 at intervals of not more than 30 months, except that for containers approved as new containers the interval from the date of manufacture to the date of the first examination must not exceed five years. For containers approved, examined and plated as existing containers before January 1, 1985 and containers approved and plated as new containers

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before January 1, 1985, the subsequent examination must be carried out in accordance with the following schedule:

Date of initial plating	Subsequent examination
Existing containers before Sept. 30, 1981 and new containers before Dec. 31, 1978.	Before Jan. 1986
Existing containers between Oct. 1, 1981 and Sept. 30, 1982 and new containers between Jan. 1, 1979 and Dec. 31, 1979.	Before May 1986
Existing containers between Oct. 1, 1982 and Sept. 30, 1993 and new containers between Jan. 1, 1980 and Dec. 31, 1990.	Before Sept. 1996
Existing containers between Oct. 1, 1983 and Dec. 31, 1984 and new containers between Jan. 1, 1981 and Dec. 31, 1991.	Before Jan. 1997

NOTE: Containers plated under § 451.14 are considered existing containers in the above schedule.

(b) Upon completion of an examination required by this part, the owner shall mark on the safety approval plate, or on the container itself as close as practicable to the safety approval plate, the month and year before which the container must next be examined. This marking must be on all containers by January 1, 1987. The marking may be by a decal, sticker, stencil, or other means so long as it is capable of remaining legible for at least 24 months. Affixing such a marking to a container that has not been examined in accordance with § 452.3 constitutes a misrepresentation in a matter within the jurisdiction of an agency of the United States, and makes the owner punishable under 18 U.S.C. 1001.

(c) The owner of containers subject to this section shall have those containers examined in accordance with the program prescribed in this section regardless of whether the examinations are preformed within or outside the United States.

[45 FR 37216, June 2, 1980, as amended at 47 FR 50498, Nov. 8, 1982; 49 FR 15562, Apr. 19, 1984]

§ 452.3 Elements of periodic examinations.

(a) Periodic examinations required by § 452.1 must conform to the following minimum requirements:

(1) Each examination must include a detailed visual inspection for defects such as cracks, failures, corrosion, missing or deteriorated fasteners, and any other safety related deficiency or damage which could place any person in danger. Any such deficiencies disclosed by the examination must be corrected by the owner before the container is continued in service.

(2) Each examination must take into account the particular characteristics of various kinds (types) of containers and materials of construction.

(3) Each examination must be performed by qualified personnel, trained and experienced in the detection of container structural damage.

(4) The examinations must be scheduled so as to allow adequate time for thorough performance.

(5) Each examination must apply owner established or industry accepted pass/fail criteria to determine whether a container has any deficiency that must be remedied before the container is returned to service.

(b) Examinations must be documented, and the records retained by the owner, until the next examination is completed and recorded. The records must include in addition to identification of the container, a record of the date of last examination and a means of identifying the examiner. The records must be maintained in an office under the control of the owner and be made available for inspection by the Coast Guard upon demand. If the original records are maintained outside the United States, its territories or possessions, supplementary records must be available in written or data processing form to be produced on demand of the Commandant or his representative.

§ 452.5 Examinations made in conjunction with other inspections.

(a) Periodic examinations may be made in conjunction with or as part of routine change-of-custody inspections, or in any other manner convenient to the owner so long as the examinations conform to the requirements of § 452.3.

§ 452.7 Continuous examination program.

(a) In lieu of a periodic examination under § 452.1, each owner of an approved container meeting § 450.5 may examine the container or have it examined using an approved continuous examination program. An owner must submit the continuous examination program for approval to the Commandant (G-MVI), United States Coast Guard, 2100 Second St. SW, Washington, D.C. 20503. When submitting a continuous examination program for approval the owner must show the continuous examination complies with § 452.9.

(b) The owner must mark the container with the letters "ACEP/USA/ (year continuous examination program is approved)" to indicate the container is being periodically examined under an approved continuous examination program. This marking must be as close as practicable to the safety approval plate. This marking must be on all containers covered by a continuous examination program by January 1, 1987.

(c) The owner of containers subject to this section shall have those containers examined in accordance with the program prescribed in this section regardless of whether the examinations are performed within or outside the United States.

(The information collection requirements contained in paragraphs (a) and (b) have been approved by the Office of Management and Budget under OMB control number 2115-0094)

[49 FR 15562, Apr. 19, 1984]

§ 452.9 Elements of a continuous examination program.

(a) Examinations required by § 452.7 must conform to the following minimum requirements:

(1) A thorough examination that must include a detailed visual inspection for defects such as cracks, failures, corrosion, missing or deteriorated fasteners, and any other safety related deficiency or damage that could place any person in danger. Any such deficiencies disclosed by the examination must be corrected by the owner before the container is continued in service. A thorough examination must be done each time a container undergoes a

major repair, refurbishment or on-hire/off-hire interchange. In no case is the time period between thorough examinations to exceed 30 months.

(2) Each thorough examination must be performed by qualified personnel, trained and experienced in the detection of container structural damage.

(3) Each thorough examination must apply owner established or industry accepted pass/fail criteria to determine whether a container has any deficiency that must be remedied before the container is returned to service.

(b) Thorough examinations must be documented, and the records retained by the owner, until the next examination is completed and recorded. The records must include in addition to identification of the container, a record of the date of last examination and a means of identifying the examiner. The records must be maintained in an office under the control of the owner and be made available for inspection by the Coast Guard upon demand. If the original records are maintained outside the United States, its territories or possessions, supplementary records must be available in written or data processing form to be produced on demand of the Commandant or his representative.

(The information collection requirements contained in paragraph (b) have been approved by the Office of Management and Budget under OMB control number 2115-0094)

[49 FR 15562, Apr. 19, 1984]

PART 453—CONTROL AND ENFORCEMENT

Sec.

453.1 Unsafe and noncomplying containers subject to detention or control.

453.3 Detention orders and other orders.

453.5 Termination of detention orders and other orders.

453.7 Appeal provisions.

AUTHORITY: Sec. 4, 91 Stat. 1475, 46 U.S.C. 1503, 49 CFR 1.46(n).

SOURCE: 45 FR 37217, June 2, 1980, unless otherwise noted.

§ 453.1 Unsafe and noncomplying containers subject to detention or control.

(a) Any container used in or offered for movement in international transport which does not have a valid safety approval plate attached to it is subject to detention or other control by a District Commander or Captain of the Port. However, upon receipt of evidence that a container which does not have a valid safety approval plate attached to it meets the standards of the convention, the District Commander or Captain of the Port may authorize limited movement of such container under conditions he deems appropriate. This paragraph becomes effective on January 3, 1979 for new containers and on January 1, 1985 for existing containers.

(b) If a District Commander or Captain of the Port finds that a container used in or offered for movement in international transport, even though it has a valid safety approval plate attached to it, is in a condition that creates an obvious risk to safety, he issues a detention order causing the container to be removed from service until it is restored to a safe condition. In addition to removing a container from transport, a detention order may require any special handling, including unloading prior to movement, necessary to ensure safety.

(c) If a District Commander or Captain of the Port finds that a container used or offered for movement in international transport has not been timely examined, the District Commander or Captain of the Port affixes to the container, at a place on the container where it will be readily noticeable to anyone loading or unloading the container, a mark or tag indicating that the container must be examined before being reloaded and again used in international transport. The mark or tag affixed by the District Commander or Captain of the Port indicates the place and the date on which it was affixed, and is capable of remaining legible and in place for at least 12 months. Such mark or tag must not be removed until the container is examined in accordance with § 452.3 of this subchapter. If a District Commander or Captain of the Port finds that container marked or tagged

as provided for in this paragraph was reloaded and used or offered for movement in international transport without having been examined, the District Commander or Captain of the Port issues a detention order causing the container to be removed from service until it is brought into compliance.

[45 FR 37217, June 2, 1980, as amended at 47 FR 50498, Nov. 8, 1982]

§ 453.3 Detention orders and other orders.

(a) The terms of any detention order or other order issued under § 453.1, to the maximum extent practicable, make provisions to avoid loss or damage to cargo.

(b) Written notice of any detention order or other order issued under § 453.1 is given immediately to the terminal operator, stevedore, or other person having actual control over the container involved. Prompt notification is also given to the owner of the container, or his agent. The notification identifies the container involved, its location, and describes the condition which gave rise to the order.

§ 453.5 Termination of detention orders and other orders.

(a) When a container, which is the subject of a detention order or other order, is restored to a safe condition or otherwise brought into compliance, it must be examined in accordance with § 452.3 and a new re-examination date marked on the container in accordance with § 452.1(b) of this subchapter.

(b) The owner or the owner's agent shall notify the District Commander or Captain of the Port who issue the order, in writing, that the container has been brought into compliance. Upon giving such notice, the owner, or his agent, may return the container to service.

§ 453.7 Appeal provisions.

(a) The owner, his agent, or the custodian of a container subject to a detention order or other order may petition the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard to review that order.

(b) The Chief, Merchant Vessel Inspection Division, Office of Merchant

Marine Safety, U.S. Coast Guard requires independent surveys to determine the extent of deficiencies, if necessary. Upon completion of his review, including review of the results of any required independent surveys, the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard affirms, sets aside, or modifies the order.

(c) The owner of a container is liable for any costs incident to a petition for review including any independent surveys, and for any other costs incident to or resulting from detention or other control of a container.

(d) Unless otherwise determined by the Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard, a detention order or other order remains in effect pending the outcome of any petition or appeal of that order.

(e) The Chief, Merchant Vessel Inspection Division, Office of Merchant Marine Safety, U.S. Coast Guard acts on all appeals within ten days of receipt.

[45 FR 37217, June 2, 1980, as amended at 47 FR 50498, Nov. 3, 1983]

CHAPTER V—NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

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Cross Reference: See 23 CFR, Chapter I, Subchapter G, Federal Highway Administration, Department of Transportation, for regulations on the certification of vehicle size and weight enforcement and the certification of speed limit enforcement.

PART 501—ORGANIZATION AND DELEGATION OF POWERS AND DUTIES

Sec.

501.1 Purpose.

501.2 General.

501.3 Organization and general responsibilities.

501.4 Succession to Administrator.

501.5 Exercise of authority.

501.6 Secretary's reservations of authority.

501.7 Administrator's reservations of authority.

501.8 Delegations.

AUTHORITY: Sec. 9, 80 Stat. 930 (49 U.S.C. 1650).

SOURCE: 43 FR 8525, Mar. 2, 1978, unless otherwise noted.

§ 501.1 Purpose.

This part describes the organization of the National Highway Traffic Safety Administration (NHTSA) through Associate Administrator and Staff Office Director levels in NHTSA and provides for the performance of duties imposed, and the exercise of powers vested in the Administrator of the NHTSA (hereafter referred to as the "Administrator").

§ 501.2 General.

The National Highway Traffic Safety Administrator is delegated authority by the Secretary of Transportation (49 CFR 1.50) to:

(a) Carry out the National Traffic and Motor Vehicle Safety Act of 1966, as amended (80 Stat. 718; (15 U.S.C. 1381, et seq.)).

(b) Carry out the Highway Safety Act of 1966, as amended (80 Stat. 731) (including chapter 4 of title 23 U.S.C.) except for highway safety programs, research, and development relating to highway design, construction and maintenance, traffic control devices, identification, and surveillance of accident locations, and highway-related aspects of pedestrian and bicycle safety.

(c) Exercise the authority vested in the Secretary by section 210(2) of the Clean Air Act (42 U.S.C. 1857, et seq.) as amended by section 10(b) of Pub. L. 91-604 (84 Stat. 1700).

(d) Exercise the authority vested in the Secretary by section 204(b) of the Federal Railroad Safety Act of 1970

(84 Stat. 972; 45 U.S.C. 433(b)) with respect to the laws administered by the National Highway Traffic Safety Administrator pertaining to highway, traffic, and motor vehicle safety.

(e) Carry out the Act of July 14, 1960, as amended (74 Stat. 526; 23 U.S.C. 313 note).

(f) Carry out the functions vested in the Secretary by the Motor Vehicle Information and Cost Savings Act, as amended (15 U.S.C. 1901 et seq.) except section 512.

(g) Carry out the functions vested in the Secretary by section 211(c) of the Highway Safety Act of 1973, Pub. L. 93-87, title II (87 Stat. 282).

(h) Carry out the functions vested in the Secretary by section 108 of the Motor Vehicle and Schoolbus Safety Amendments of 1974 (Pub. L. 93-492, 88 Stat. 1472).

(i) Administer the following sections of title 23, U.S.C., with the concurrence of the Federal Highway Administrator:

(1) 141, as it relates to certification of the enforcement of speed limits; and

(2) 154 (a), (b) and (d).

(j) Carry out the functions vested in the Secretary by section 1(a) of Executive Order 11912.

[43 FR 8525, Mar. 2, 1978, as amended at 50 FR 7345, Feb. 22, 1985]

§ 501.3 Organization and general responsibilities.

The organization of, and general spheres of responsibility within, the NHTSA, through the levels of the immediate Office of the Administrator (which includes the Deputy Administrator; the Executive Secretariat; Director, Office of Civil Rights; and the Director, Office of Public Affairs and Consumer Participation), the Chief Counsel and the offices of the Associate Administrators, are as follows:

(a) *Office of the Administrator*—(1) *Administrator*. Provides for: (i) Representation of the Department and is the principal advisor to the Secretary in all matters relating to functions assigned under the National Traffic and Motor Vehicle Safety Act of 1966, as amended; to the driver and motor vehicle functions assigned under the

Highway safety Act of 1966; to motor vehicle and consumer information functions under the Motor Vehicle Information and Cost Savings Act of 1972, as amended; and to such other authorities as delegated by the Secretary of Transportation (49 CFR 1.50):

(ii) Establishing NHTSA program policies, objectives, and priorities and directing development of action plans to accomplish the NHTSA mission;

(iii) Directing, controlling, and evaluating the organization, program activities, performance of NHTSA staff, program, and field offices;

(iv) Approving broad legislative, budgetary, fiscal and program proposals and plans; and

(v) Taking management actions of major significance, such as those relating to changes in basic organization pattern, appointment of key personnel, allocation of resources, and matters of special political or public interest of sensitivity.

(2) *Deputy Administrator.* Assists the Administrator in the discharge of his/her responsibilities and is responsible for: directing and coordinating the Administration's management and operational programs as well as the related policies and procedures at headquarters and in the field; and day-to-day direction of the Regional Administrators.

(3) *Executive Secretariat.* Provides a central facilitative staff for the Administrator and Deputy Administrator and services and support to the National Highway Safety Advisory Committee and such other committees as designated by the Administrator.

(4) *Director, Office of Public Affairs and Consumer Participation.* Acts as principal staff advisor to the Administrator on public affairs and consumer programs, and provides comprehensive programs for public information and public affairs covering all NHTSA activities.

(5) *Director, Office of Civil Rights.* As principal staff advisor to the Administrator and Deputy Administrator on all matters pertaining to civil rights, acts as Director of Equal Employment Opportunity, Contracts Compliance Officer, and title VI (Civil Rights Act of 1964) Coordinator; assures Administrationwide compliance

with related laws, Executive Orders, regulations, and policies; and, provides assistance to the Office of the Secretary in investigating and adjudicating formal complaints of discrimination.

(b) *Chief Counsel.* As chief legal officer, the Chief Counsel provides legal services to the Administrator and officers of the Administration, prepares litigation for the Administration; effects rulemaking actions; and serves as coordinator on legislative affairs.

(c) *Associate Administrators*—(1) *Associate Administrator for Rulemaking.* As the principal advisor to the Administrator on all matters as they relate to the setting of standards and regulations, administers the programs of the administration to develop and promulgate Federal standards and regulations dealing with the crash protection, crash survivability, crash avoidance of motor vehicles, the issuance of mandatory fuel economy and theft prevention standards and related procedural regulations, and the development of consumer information and regulations dealing with the crash protection and survivability characteristics, damageability, crash avoidance, ease of diagnosis and repair of motor vehicles.

(2) *Associate Administrator for Enforcement.* As the principal advisor to the Administrator on all matters as they relate to the enforcement of motor vehicle safety, fuel economy, theft prevention, and damageability laws and standards, administers programs of the administration to ensure compliance with Federal laws, standards and regulations pertinent to vehicle safety, fuel economy, theft prevention, damageability, consumer information and odometer fraud.

(3) *Associate Administrator for Traffic Safety Programs.* Directs programs relating to: State and community uniform traffic safety performance standards, including vehicle-in-use performance inspection standards; financial and technical assistance to States and communities to achieve comprehensive traffic safety programs; and, the promotion of national programs on traffic safety, including the reduction of alcohol and drug use by drivers.

(4) *Associate Administrator for Research and Development.* Directs pro-

GREENS relating to: research, development; accident investigation and information collection, analysis and dissemination; and development of facilities requirements to support NHTSA research and development efforts.

(5) *Associate Administrator for Plans and Programs.* Acts as advisor to the Administrator and Deputy Administrator on all matters involving NHTSA policies, objectives, programs, and plans and their relationship to those of the Department of Transportation.

(6) *Associate Administrator for Administration.* Acts as advisor to the Administrator and Deputy Administrator on all administrative and managerial matters as they relate to NHTSA missions, programs, and objectives; organization and delegations of authority; management studies; personnel management; training; logistics and procurement; budget; financial management; accounting and data systems design; paperwork management; investigations and security; audit; defense readiness; and administrative support services.

[43 FR 8525, Mar. 2, 1978, as amended at 50 FR 7345, Feb. 22, 1985]

§ 501.4 Succession to Administrator.

The following officials in the order indicated, shall act as Administrator of the National Highway Traffic Safety Administration, in the case of the absence or disability or in the case of a vacancy in the Office of the Administrator, until a successor is appointed:

- (a) Deputy Administrator,
- (b) Chief Counsel,
- (c) Associate Administrator for Plans and Programs,
- (d) Associate Administrator for Rulemaking,
- (e) Associate Administrator for Enforcement,
- (f) Associate Administrator for Research and Development,
- (g) Associate Administrator for Traffic Safety Programs, and
- (h) Associate Administrator for Administration.

§ 501.5 Exercise of authority.

(a) In exercising the powers and performing the duties delegated by this part, officers of the NHTSA and their

delegates are governed by applicable laws, executive orders, regulations, and other directives, and by policies, objectives, plans, standards, procedures, and limitations as may be issued from time to time by or on behalf of the Secretary of Transportation, the Administrator and Deputy Administrator, or, with respect to matters under their jurisdictions, by or on behalf of the Associate Administrators, and Directors of staff offices.

(b) Each officer to whom authority is delegated by this part may redelegate and authorize successive redelegations of that authority subject to any conditions he may prescribe. Redelegations of authority shall be in written form and shall be published in the FEDERAL REGISTER when they affect the public.

(c) Each officer to whom authority is delegated will administer and perform the functions described in his respective functional statements.

§ 501.6 Secretary's reservations of authority.

The authorities reserved to the Secretary of Transportation are set forth in § 1.44 of Part 1 and in Part 95 of the regulations of the Office of the Secretary of Transportation in subtitle A of this title (49 CFR Parts 1 and 95).

§ 501.7 Administrator's reservations of authority.

The delegations of authority in this part do not extend to the following authority which is reserved to the Administrator and, in those instances when the office of Administrator is vacant due to death or resignation, to the Deputy Administrator:

(a) The authority under the National Traffic and Motor Vehicle Safety Act of 1966, as amended, to:

(1) Establish, amend, or revoke final new and used motor vehicle safety standards and regulations except for the issuance of amendments to existing standards through the abbreviated rulemaking procedures concerning tires and rims;

(2) Make final determinations concerning violations of the Act and regulations issued thereunder.

(b) The authority under the Highway Safety Act of 1966, as amended, to:

(1) Apportion authorization amounts and distribute obligation limitations for State and community highway safety programs;

(2) Approve the awarding of incentive grants to the States authorized under 23 U.S.C. 402(j);

(3) Promulgate uniform State and community highway safety standards;

(4) Amend or revoke State and community highway safety standards and appurtenant regulations; and

(5) Fix the rate of compensation for non-government members of the National Highway Safety Advisory Committee.

(c) The authority under the Motor Vehicle Information and Cost Savings Act of 1972, as amended (49 U.S.C. 1902 *et seq.*), to:

(1) Establish, amend, revoke, or grant exemptions from final motor vehicle standards;

(2) Establish, amend, revoke, or grant exemptions from final automotive fuel economy standards;

(3) Initially compile official information to consumers and automobile dealers, and issue final rules and regulations developed under the act;

(4) Make final determinations concerning violations of the Act and regulations thereunder;

(5) Assess civil penalties and grant credits to manufacturers under section 508.

(d) The authority under section 211(c) of the Highway Safety Act of 1973, to allocate funds to the States.

(e) The authority under section 141 and section 154(a) and (d) of title 23 of the U.S.C., with the concurrence of the Federal Highway Administrator, to disapprove any State certification or to impose any sanction on a State.

[43 FR 8525, Mar. 2, 1978; 43 FR 11995, Mar. 23, 1978, as amended at 48 FR 27547, June 16, 1983]

§ 501.8 Delegations.

(a) *Deputy Administrator.* The Deputy Administrator is delegated authority to act for the Administrator, except where specifically limited by law, order, regulation, reservation, or instructions of the Administrator.

(b) *Director, Office of Civil Rights.* The Director, Office of Civil Rights is delegated authority to:

(1) Act as the NHTSA Director of Equal Employment Opportunity.

(2) Act as NHTSA Contracts Compliance Officer.

(3) Act as NHTSA coordinator for matters under title VI of the Civil Rights Act of 1964, Executive Order 11247, and regulations of the Department of Justice.

(c) *Executive Secretary.* The Executive Secretary is delegated authority to issue subpoenas, at the request of the Assistant Chief Counsel for Litigation and after notice to the Administrator, for the attendance of witnesses and production of documents pursuant to the National Traffic and Motor Vehicle Safety Act and the Motor Vehicle Information and Cost Savings Act.

(d) *Chief Counsel.* The Chief Counsel is delegated authority to:

(1) Exercise the powers and perform the duties of the Administrator with respect to the setting of odometer regulations authorized under title IV of the Motor Vehicle Information and Cost Savings Act (86 Stat. 947, as amended, 90 Stat. 981; 15 U.S.C. 1901).

(2) Establish the legal sufficiency of all investigations conducted under the authority of the National Traffic and Motor Vehicle Safety Act of 1966, as amended (80 Stat. 718; 15 U.S.C. 1381 *et seq.*) and under the authority of titles I, IV, and VI of the Motor Vehicle Information and Cost Savings Act of 1972, as amended (86 Stat. 947; 15 U.S.C. 1901 *et seq.*), and to compromise any civil penalty or monetary settlement resulting therefrom in an amount of \$5,000 or less.

(3) Exercise the powers of the Administrator, other than subpoena powers, under the following paragraphs of subsection 112(c) of the National Traffic and Motor Vehicle Safety Act (90 Stat. 718, as amended 88 Stat. 1470; 15 U.S.C. 1401(c)) at such stage in each investigation as the Administrator may determine that the preliminary data indicate a need for full inquiry: paragraph (1), paragraph (3) with respect to requiring reports and answers to be given under oath, paragraph (4), and paragraph (5).

(e) *Associate Administrator for Plans and Programs.* The Associate Administrator for Plans and Programs is delegated authority to direct the NHTSA planning and evaluation system in conjunction with Departmental requirements and planning goals; coordinate the development of the Administrator's plans, policies, and programs, the analyses of their expected impact, and their evaluation in terms of the degree of goal achievement; and perform independent analyses of proposed Administration regulatory, grant, legislative, and program activities.

(f) *Associate Administrator for Rulemaking.* Except for those portions that have been reserved to the Administrator, the Associate Administrator for Rulemaking is delegated authority to exercise the powers and perform the duties of the Administrator with respect to the setting of motor vehicle safety and theft prevention standards, average fuel economy standards, procedural regulations, and the development of consumer information and regulations authorized under:

(1) The National Traffic and Motor Vehicle Safety Act of 1966, as amended (80 Stat. 718; 15 U.S.C. 1381 et seq.) except section 108 (b)(1) regarding used motor vehicles and State inspections, including the issuance of amendments to existing standards concerning tires and tire-rims through the prescribed abbreviated rulemaking procedures, subject to prior coordination with the Chief Counsel; and

(2) Titles I, II, V and VI of the Motor Vehicle Information and Cost Savings Act, as amended (86 Stat. 947; 15 U.S.C. 1901 et seq.).

(g) *Associate Administrator for Enforcement.* Except for those portions that have been reserved to the Administrator, delegated to the Chief Counsel, or delegated to the Executive Secretary, the Associate Administrator for Enforcement is delegated authority to exercise the powers and perform the duties of the Administrator with respect to administering the NHTSA enforcement program for all laws, standards, and regulations pertinent to vehicle safety, fuel economy, theft prevention, damageability, consumer information and odometer fraud, au-

thorized under the National Traffic and Motor Vehicle Safety Act of 1966, as amended (80 Stat. 718; 15 U.S.C. 1381 et seq.), and the Motor Vehicle Information and Cost Savings Act of 1972, as amended (86 Stat. 947; 15 U.S.C. 1901).

(h) *Associate Administrator for Traffic Safety Programs.* Except for those portions that have been reserved to the Administrator the Associate Administrator for Traffic Safety Programs is delegated authority to exercise the powers and perform the duties of the Administrator with respect to: The Highway Safety Act of 1966 (80 Stat. 731; 23 U.S.C. 401 et seq.), as amended; section 108(b)(1) of the National Traffic and Motor Vehicle Safety Act of 1966, as amended (80 Stat. 718; 15 U.S.C. 1381 et seq.), regarding used motor vehicles and State inspection; the authority vested by section 210(2) of the Clean Air Act (42 U.S.C. 1857, et seq.), as amended by section 10(b) of Pub. L. 91-604 (84 Stat. 1700); the authority vested by section 204(b) of the Federal Railroad Safety Act of 1970 (84 Stat. 972; 45 U.S.C. 433(b)), with respect to the laws administered by the Administrator pertaining to highway traffic, and motor vehicle safety; administering title III of the Motor Vehicle Information and Cost Savings Act of 1972 (86 Stat. 959; 15 U.S.C. 1901); carrying out the requirements of 211(c) of the Highway Safety Act of 1973 (87 Stat. 283); and the carrying out of the Act of July 14, 1960 (National Driver Register), as amended (74 Stat. 526; 23 U.S.C. 313 note); administers sections 141, as it relates to certification of the enforcement of speed limits, and 154 (a), (b), and (d) of title 23 U.S.C., with the concurrence of the Federal Highway Administrator.

(i) *Associate Administrator for Research and Development.* The Associate Administrator for Research and Development is delegated authority to:

(1) Develop and conduct research and development programs and projects necessary to support the purposes of the National Traffic and Motor Vehicle Safety Act of 1966, as amended, the Highway Safety Act of 1966, as amended, and the Motor Vehi-

cle Information and Cost Savings Act of 1972, as amended, in coordination with the appropriate Associate Administrators and the Chief Counsel.

(2) Conduct safety research, either independently or in cooperation with other public or private organizations, to improve the total state-of-the-art of motor vehicle and highway traffic safety.

(j) *Associate Administrator for Administration.* The Associate Administrator for Administration is delegated authority to:

(1) Exercise procurement authority with respect to requirements of the NHTSA;

(2) Administer and conduct personnel management activities of the NHTSA;

(3) Administer NHTSA fiscal management programs, including systems of funds control and accounts of all financial transactions, budgetary programs and controls, and the allocation of personnel resources; and

(4) Conduct administrative management services in support of NHTSA missions and programs.

(k) *Regional Administrators.* Each Regional Administrator is delegated authority to:

(1) Approve or disapprove State Highway Safety Plans, including the initial agreement, any changes thereto, and approval of final vouchers, in accordance with the procedural requirements of the Administration (jointly with the delegate of the Federal Highway Administrator, except for highway safety programs administered on Indian Reservations by the Secretary of the Interior under 23 U.S.C. 402(i));

(2) Administer the operational phases as contract technical manager for any projects that have been or may be delegated for regional administration.

(Delegation at 49 CFR 1.50)

[43 FR 3525, Mar. 2, 1978, as amended at 43 FR 51022, Nov. 2, 1978; 44 FR 76295, Dec. 26, 1979; 50 FR 7345, Feb. 22, 1985]

PART 509—OMB CONTROL NUMBERS FOR INFORMATION COLLECTION REQUIREMENTS

Sec.

509.1 Purpose.

509.2 Display.

AUTHORITY: 44 U.S.C. 3507.

SOURCE: 48 FR 51310, Nov. 8, 1983, unless otherwise noted.

§ 509.1 Purpose.

This part collects and displays the control numbers assigned to information collection requirements of NHTSA by the Office of Management and Budget (OMB). NHTSA intends that this part comply with the requirements of 44 U.S.C. 3507(f), which mandates that agencies display a current control number assigned by the Director of the OMB for each agency information collection requirement.

§ 509.2 Display.

49 CFR Part or section containing information collection requirement	OMB control number
Part 512.....	2127-0025
Part 537.....	2127-0019
Section 551.45.....	2127-0040
Part 552.....	2127-0046
Part 556.....	2127-0045
Part 557.....	2127-0039
Part 566.....	2127-0043
Consolidated labeling requirements for Tires and Rims (Parts 569 and 574, sections 571.109, 571.110, 571.117, 571.119, and 571.120).....	2127-0503
Consolidated labeling requirements for Vehicles excluding VIN (Part 567, sections 571.105, 571.205, and 571.209).....	2127-0512
VIN requirements (Parts 542 and 565, section 571.115).....	2127-0510
Section 571.106.....	2127-0052
Section 571.115 (Report).....	2127-0051
Section 571.116.....	2127-0521
Section 571.125.....	2127-0506
Section 571.126.....	2127-0516
Section 571.205.....	2127-0038
Section 571.208.....	2127-0535
Section 571.213.....	2127-0511
Section 571.217.....	2127-0505
Section 571.218.....	2127-0518
Part 573.....	2127-0004
Part 574.....	2127-0050
Part 575 excluding UTOGS.....	2127-0049
Section 575.104 (UTOGS).....	2127-0519
Part 576.....	2127-0042
Part 580.....	2127-0047

[50 FR 40024, Oct. 1, 1985]

**PART 510—INFORMATION
GATHERING POWERS****Sec.**

- 510.1 Scope and purpose.
- 510.2 Definitions.
- 510.3 Compulsory process, the service thereof, claims for confidential treatment, and terms of compliance.
- 510.4 Subpoenas generally.
- 510.5 Information gathering hearings.
- 510.6 Administrative depositions.
- 510.7 General or special orders.
- 510.8 Written requests for the production of documents and things.
- 510.9 Motions to modify, limit, or quash process.
- 510.10 Supplementation of responses to process.
- 510.11 Fees.
- 510.12 Remedies for failure to comply with compulsory process.

AUTHORITY: Secs. 112 and 119, National Traffic and Motor Vehicle Safety Act 1966, as amended (15 U.S.C. 1401 and 1407); secs. 104, 204, 414, and 505, Motor Vehicle Information and Cost Savings Act, as amended (15 U.S.C. 1914, 1944, 1990d, and 2005); delegation of authority (49 CFR 1.51).

SOURCE: 45 FR 29042, May 1, 1980, unless otherwise noted.

§ 510.1 Scope and purpose.

This rule governs the use of the information gathering powers of the National Highway Traffic Safety Administration contained in section 112 of the National Traffic and Motor Vehicle Safety Act of 1966, as amended 15 U.S.C. 1401, and sections 104, 204, 414, and 505 of the Motor Vehicle Information and Cost Savings Act, as amended 15 U.S.C. 1914, 1944, 1990d, and 2005.

§ 510.2 Definitions.

(a) "NHTSA" means the National Highway Traffic Safety Administration.

(b) "Administrator" means the Administrator of the National Highway Traffic Safety Administration.

(c) "Chief Counsel" means the Chief Counsel of the National Highway Traffic Safety Administration.

(d) "Deputy Administrator" means the Deputy Administrator of the National Highway Traffic Safety Administration.

(e) "Person" includes agents, officers, and employees of sole proprietor-

ships, partnerships, corporations, and other entities.

[45 FR 29042, May 1, 1980; 45 FR 32001, May 15, 1980]

§ 510.3 Compulsory process, the service thereof, claims for confidential treatment, and terms of compliance.

(a) NHTSA may use any of the following means to conduct investigations, inspections, or inquiries to obtain information to carry out its functions under the National Traffic and Motor Vehicle Safety Act of 1966, as amended, 15 U.S.C. 1381 et seq., and the Motor Vehicle Information and Cost Savings Act, as amended, 15 U.S.C. 1901 et seq.:

- (1) Subpoenas;
- (2) Information gathering hearings;
- (3) Administrative depositions;
- (4) General or special orders; and
- (5) Written requests for the production of documents and things.

(b) A person, sole proprietorship, partnership, corporation, or other entity served with compulsory process under this part shall be provided with the following information at the time of the service:

(1) The name of the person, sole proprietorship, partnership, corporation, or other entity to which the process is addressed;

(2) The statutory provision under which the compulsory process is issued;

(3) The date, time, and place of return;

(4) A brief statement of the subject matter of the investigation, inspection, or inquiry; and

(5) In the case of a subpoena *duces tecum* or a written request for the production of documents and things, a reasonably specific description of the documents or things to be produced.

(c) Service of the compulsory processes specified in paragraph (a) of this section is effected:

(1) By personal service upon the person, agent-in-charge, or agent designated to receive process under 15 U.S.C. 1399(e) of the sole proprietorship, partnership, corporation or other entity being investigated, inspected, or inquired of; or

(2) By mail (registered or certified) or delivery to the last known residence or business address of such person or agent.

(d) The date of service of any compulsory process specified in paragraph (a) of this section is the date on which the process is mailed by the agency, or delivered in person, as the case may be. Whenever a period is prescribed for compliance with compulsory process, and the process is served upon the party by mail, 3 days are added to the period.

(e) (1) Any person, sole proprietorship, partnership, corporation, or other entity submitting information or producing documents or things in response to any compulsory process issued under this part may request confidential treatment for all or part of that information or for those documents or things.

(2) (i) Except as provided in paragraph (e)(2)(ii) of this section, requests for confidentiality shall be in writing, and addressed to the Chief Counsel.

(ii) Requests for confidentiality made during an information gathering hearing or an administrative deposition may be made orally to the presiding officer. Any oral request for confidentiality shall be supplemented by a written request, and this written request must be addressed to the Chief Counsel and received by NHTSA within five days of the date of the oral request.

(iii) A written request for confidentiality under paragraph (e) of this section shall specify the information, documents, or things which are to be kept confidential, specify the grounds upon which the claim is based, provide such information as may be necessary to permit the NHTSA to determine whether the claim is valid, and specify the period of time for which confidential treatment is requested.

(f) The Chief Counsel, or his or her delegate, is authorized to negotiate and approve the terms of satisfactory compliance with any compulsory process issued under this part.

§ 510.4 Subpoenas, generally.

NHTSA may issue to any person, sole proprietorship, partnership, cor-

poration, or other entity a subpoena requiring the production of documents or things (subpoena *duces tecum*) the testimony of witnesses (subpoena *ad testificandum*), or both, relating to any matter under investigation or the subject of an inquiry. Subpoenas are issued by the Executive Secretary. When a person, sole proprietorship, partnership, corporation, or other entity is served with a subpoena *ad testificandum* under this part, the subpoena will describe with reasonable particularity the matters on which the testimony is required. In response to a subpoena *ad testificandum*, the sole proprietorship, partnership, corporation, or other entity so named shall designate one or more officers, directors, or managing agents, or other persons who consent to testify on its behalf, and set forth, for each person designated, the matters on which he or she will testify. The person so designated shall testify as to matters known or reasonably available to the entity.

§ 510.5 Information gathering hearings.

(a) NHTSA may issue a subpoena to compel any person, sole proprietorship, partnership, corporation, or other entity to provide information at an information gathering hearing. The subpoenas are used for the purpose of obtaining testimony from a witness under oath and obtaining relevant documents and things. The Administrator, or a NHTSA employee designated by the Administrator, presides at the hearing. Information gathering hearings are open to the public unless the presiding officer rules otherwise, and the hearings are stenographically reported.

(b) In addition to the presiding officer, one or more other persons may comprise the panel. Each member of the panel may question any witness at the hearing. No person who is not a member of the panel may ask questions of a witness. However, any person may submit to the panel, in writing, proposed questions to be asked of a witness. A member of the panel may pose these questions to the witness if that member deems the questions useful and appropriate. Pro-

posed questions may be submitted to the panel at any time before or during the course of the hearing.

(c) The stenographic record of each witness's testimony will be available to the public, unless the testimony was not given publicly and the witness requests confidential treatment for some or all of his or her testimony. When an oral request for confidential treatment is made during the course of a witness's testimony, the presiding officer may order the hearing closed to the public at that point and continue the questioning of the witness, or may note the request for confidentiality and direct the witness not to answer the question at that time, but require the witness to answer the question in writing within some specified period, or take such other action as the presiding officer deems appropriate. If a request for confidential treatment is made, the release of the record is governed by the applicable laws or regulations relating to the handling of allegedly confidential information. To the extent that some or all of a witness's testimony is not publicly available, that witness may procure a copy of his or her testimony as recorded upon payment of lawfully prescribed costs.

(d)(1) Any person who is required by subpoena or designated by an entity that is required by subpoena to provide information at an information gathering hearing conducted under this section may be accompanied, represented, and advised by counsel. Any member of the bar of a Federal court or the courts of any State or Territory of the United States, the Commonwealth of Puerto Rico, or the District of Columbia, and any representative, official, or employee of the sole proprietorship, partnership, corporation or other entity under subpoena may act as counsel.

(2) A witness appearing in response to subpoena may confer in confidence with his or her counsel or representative concerning any questions asked of the witness. If such witness, counsel, or representative objects to a question, he or she shall state the objection and basis therefor on the record.

(e) The presiding officer at an information gathering hearing takes all necessary action to regulate the course

of the hearing, to avoid delay, and to assure that reasonable standards of orderly and ethical conduct are maintained. In any case in which counsel for or a representative of a witness has refused to comply with the presiding officer's directions, or to adhere to reasonable standards of orderly and ethical conduct in the course of a hearing, the presiding officer states on the record the reasons given, if any, for the refusal and, if the presiding officer is someone other than the Administrator, immediately reports the refusal to the Administrator. The Administrator thereupon takes such action as the circumstances warrant.

(f) Where appropriate, the procedures established in this subsection may be utilized in informal hearings conducted by NHTSA pursuant to its authority under sections 152 and 156 of the Safety Act (15 U.S.C. 1412, 1416) to receive data, views and arguments concerning alleged safety-related defects. The rights accorded to witnesses in this subsection may also be accorded to witnesses who appear voluntarily at such hearings.

§ 510.6 Administrative depositions.

(a) NHTSA may issue a subpoena to compel any person, sole proprietorship, partnership, corporation, or other entity to provide information as a witness at an administrative deposition. These depositions are for the purpose of obtaining information from the witness under oath and receiving documents and things relevant to an agency investigation. These depositions shall be taken before an officer authorized to administer oaths by the laws of the United States or of the place where the deposition is taken. Unless otherwise ordered by the Administrator, administrative depositions are closed to the public.

(b) Any person who is required by subpoena or designated by an entity that is required by subpoena to produce documents or things or to give testimony as a witness at an administrative deposition conducted under this section may be accompanied, represented, and advised by counsel. Any member of the bar or a Federal court or the courts of any

State or Territory of the United States, the Commonwealth of Puerto Rico, or the District of Columbia and any representative, official, or employee of the person, sole proprietorship, partnership, corporation, or other entity under subpoena may act as counsel.

(c) During an administrative deposition:

(1) The presiding officer before whom the deposition is to be taken puts the witness on oath and personally, or by someone acting under his or her direction and in his or her presence, records the testimony of the witness. The testimony is stenographically reported.

(2) After NHTSA has examined the witness at the deposition, that witness' counsel or representative may examine the witness. NHTSA may then re-examine the witness and the witnesses' counsel or representative may reexamine the witness and so forth, as appropriate.

(3) A witness appearing in response to a subpoena may confer in confidence with his or her counsel or representative concerning any questions asked of the witness. If such witness, counsel, or representative objects to a question, he or she shall state the objection and the basis therefor on the record.

(4) Objections to the qualifications of the officer taking the deposition, or to the manner of taking it, or, to the evidence presented, and any other objection to the proceedings shall be noted by the officer on the record, and shall be treated as continuing. Evidence objected to shall be taken subject to the objections. Errors and irregularities occurring at a deposition in the manner of the taking of the deposition, in the form of questions or answers, or in the oath or affirmation, and errors of any kind which might be obviated, removed, or cured if promptly presented shall be deemed to be waived unless reasonable objection is made thereto at the taking of the deposition.

(5) If the witness refuses to answer any question or answers evasively, or if the witness or his or her counsel engages in conduct likely to delay or obstruct the administrative deposition,

such refusal, evasive answer or conduct shall be a failure to comply with the subpoena issued to the witness.

(6) Upon completion of the examination of a witness, the witness may clarify on the record any of his or her answers.

(d) The transcript of the testimony of a witness who testified in response to a subpoena at an administrative deposition is submitted to the witness for signature, unless the witness waives the right to sign the transcript. If a witness desires to make any changes in the form or substance contained in the transcript, the witness shall submit, together with the transcript, a separate document setting forth the changes and stating the reasons for such changes. If the deposition is not signed by the witness within 30 days of its submission to the witness, or such other period as the NHTSA may designate, the officer before whom the deposition was taken or a NHTSA employee signs the transcript and states on the record the fact of the waiver of the right to sign or the fact of the witness' unavailability or inability or refusal to sign together with the reasons, if any, given therefor.

(e) The transcript of the testimony of a witness will be inspected by NHTSA to determine if there are any errors in the transcription of the questions posed to the witness and the testimony in response to those questions. If NHTSA discovers any errors, it notes that fact and forwards the notation of errors together with the transcript to the witness, requesting the witness to stipulate that the transcript is in error and that the corrections made by NHTSA are accurate. If the witness will not make this stipulation, NHTSA may make a motion to the presiding officer to include its notation of error and its corrections in the record along with the version of the testimony signed by the witness.

(f) (1) Upon payment of lawfully prescribed costs, any person who is required by subpoena or designated by a sole proprietorship, partnership, corporation, or other entity that is required by subpoena to appear as a witness at an administrative deposition may procure a copy of the deposition

as recorded, except that in a nonpublic investigatory proceeding, the witness may, for good cause, be limited to an inspection of the record of the deposition.

(2) A copy of the record of the deposition may be furnished to the witness without charge or at a reduced charge if the Associate Administrator for Administration determines that waiver of the fee is in the public interest because furnishing the copy can be considered as primarily benefitting the general public. Any witness who seeks a waiver of the copying charge may apply in writing to the Associate Administrator for Administration, and shall state the reasons justifying waiver of the fee in the application.

(g) The testimony obtained in an administrative deposition may be used or considered by the NHTSA in any of its activities, and may be used or offered into evidence in any administrative proceeding in accordance with the provisions of 5 U.S.C. 554, or in any judicial proceeding.

§ 510.7 General or special orders.

The NHTSA may require by the issuance of general or special orders any person, sole proprietorship, partnership, corporation, or other entity to file with the NHTSA, in such form as NHTSA may prescribe, periodic or special reports or answers in writing to specific questions. The responses to general or special orders will provide NHTSA with such information as it may require, including, but not limited to, information relating to the organization of that person, sole proprietorship, partnership, corporation, or other entity, its business, conduct, practices, management, and relation to any other person or entity. General or special orders which are required to be answered under oath are issued by the Chief Counsel. Any general or special order issued under this section contains the information specified in § 510.3(b). Reports and answers filed in response to general or special orders must be made under oath, or otherwise, as NHTSA may prescribe.

§ 510.8 Written requests for the production of documents and things.

The NHTSA may, by the issuance of a written request for the production of documents and things, require any person, sole proprietorship, partnership, corporation, or other entity to produce documents or things. A written request for the production of documents and things may be issued alone, or as a part of a general or special order issued under § 510.7. Written requests for the production of documents and things are issued by the Chief Counsel. Any written request for the production of documents and things issued under this section shall contain the information specified in § 510.3(b).

§ 510.9 Motions to modify, limit, or quash process.

(a) (1) Any person, sole proprietorship, partnership, corporation, or other entity served with a subpoena issued under § 510.4 may file with the Deputy Administrator a motion to modify, limit, or quash that subpoena. If there is no Deputy Administrator, or the Deputy Administrator is not available, such motions shall be filed with and decided by the Associate Administrator for Administration. A motion to modify, limit, or quash must be filed not later than 15 days after the service of the process or five days before the return date specified in the process, whichever is earlier, except that, if the process is served within five days of its return date, such motion may be filed at any time before the return date. Any motion must set forth the grounds and theories of why and how the party believes the process should be modified, limited, or quashed and must contain all facts and arguments which support those grounds and theories.

(2) The Deputy Administrator may, upon receiving a motion filed pursuant to paragraph (a)(1) of this section.

- (i) Deny the motion;
- (ii) Modify the return date of the subpoena;
- (iii) Modify, limit or quash the subpoena;
- (iv) Condition granting the motion upon certain requirements; or

(v) Take any other action he or she believes to be appropriate in the circumstances.

(3) The Office of the Deputy Administrator serves the decision on the motion on the moving party or the counsel or representative of the moving party. This service may be made by personal service, by registered or certified mail, or by reading a copy of the decision to the moving party or the counsel or representative of the moving party.

(4) A denial of any motion properly filed under this section shall be in writing, and shall contain a brief statement of the facts involved and the conclusions drawn from those facts by the Deputy Administrator.

(b) The Deputy Administrator's decision on the motion to modify, limit, or quash, filed under paragraph (a) of this section is not subject to reconsideration by NHTSA.

§ 510.10 Supplementation of responses to process.

(a) A person, sole proprietorship, partnership, corporation, or other entity which has provided NHTSA with information under this part, which information was complete and accurate at the time the information was given to NHTSA, is not required to supplement that information in the light of after acquired information, except:

(1) The person or entity to whom the process is addressed shall supplement the response with respect to any question directly addressed to the identity and location of persons having knowledge of information obtainable under this part.

(2) The person or entity to whom the process is addressed shall seasonably amend a prior response if that person or entity obtains information upon the basis of which the person or entity knows that the response was incorrect when made or the person or entity knows that the response, though correct when made, is no longer true and the circumstances are such that a failure to amend the response is in substance a knowing concealment.

(b) The requirement to supplement information set forth in paragraph (a) of this section terminates when:

(1) The compulsory process stated that it was issued in connection with a contemplated rulemaking action, and a final rule is issued on that subject or a notice is issued announcing that the rulemaking action has been suspended or terminated.

(2) The compulsory process stated that it was issued in connection with an enforcement investigation, and the investigation is closed.

(3) The compulsory process does not state that it is issued in connection with a specific rulemaking action or enforcement investigation, and 18 months have passed since the date of the original response.

(c) This section in no way limits NHTSA's authority to obtain supplemental information by specific demands through the means specified in § 510.3.

§ 510.11 Fees.

Any person compelled to appear in person in response to a subpoena issued under this part at an information gathering hearing or an administrative deposition is paid the same attendance and mileage fees as are paid witnesses in the courts of the United States, in accordance with title 28, U.S.C., section 1821.

§ 510.12 Remedies for failure to comply with compulsory process.

Any failure to comply with compulsory process authorized by law and issued under this part is a violation of this part. In the event of such failure to comply, NHTSA may take appropriate action pursuant to the authority conferred by the National Traffic and Motor Vehicle Safety Act or the Motor Vehicle Information and Cost Savings Act, as appropriate, including institution of judicial proceedings to enforce the order and to collect civil penalties.

PART 511—ADJUDICATIVE PROCEDURES

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APPENDIX I—FINAL PREHEARING ORDER

AUTHORITY: Sec. 9, Pub. L. 89-670, 80 Stat. 981 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976, unless otherwise noted.

SOURCE: 45 FR 81578, Dec. 11, 1980, unless otherwise noted.

Subpart A—Scope of Rules; Nature of Adjudicative Proceedings, Definitions

§ 511.1 Scope of the rules.

This part establishes rules of practice and procedure for adjudicative proceedings conducted pursuant to section 508(a)(2) of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. Pub. L. 94-163, 89 Stat. 911, sec. 2008(a)(2)), which are required by statute to be determined on the record after opportunity for a public hearing.

§ 511.2 Nature of adjudicative proceedings.

Adjudicative proceedings shall be conducted in accordance with title 5, U.S.C., sections 551 through 559 and this part. It is the policy of the agency that adjudicative proceedings shall be conducted expeditiously and with due regard to the rights and interests of all persons affected, and to the public interest. Therefore, the presiding officer and all parties shall make every effort at each stage of a proceeding to avoid unnecessary delay.

§ 511.3 Definitions.

(a) As used in this part:

(1) The term "application" means an *ex parte* request by a party for an order that may be granted or denied without opportunity for response by any other party.

(2) The term "NHTSA" means the National Highway Traffic Safety Administration.

(3) The term "Administrator" means the Administrator of the National Highway Traffic Safety Administration.

(4) The term "Complaint Counsel" means prosecuting counsel for the NHTSA.

(5) The term "motion" means a request by a party for a ruling or order that may be granted or denied only after opportunity for response by each affected party.

(6) The term "party" means the NHTSA, and any person named as a respondent in a proceeding governed by this part.

(7) The term "person" means any individual, partnership, corporation, association, public or private organization, or Federal, State or municipal governmental entity.

(8) The term "petition" means a written request, made by a person or a party and addressed to the Presiding Officer or the Administrator, that the addressee take some action.

(9) The term "Presiding Officer" means the person who conducts an adjudicative hearing under this part, who shall be an administrative law judge qualified under title 5, U.S.C., section 3105 and assigned by the Director, Office of Administrative Law

Judges, Office of Personnel Management.

(10) The term "Respondent" means any person against whom a complaint has been issued.

(11) The term "Executive Secretary" means the Executive Secretary of the National Highway Traffic Safety Administration.

(12) The term "staff" means the staff of the National Highway Traffic Safety Administration.

Subpart B—Pleadings; Form; Execution; Service of Documents**§ 511.11 Commencement of proceedings.**

(a) *Notice of institution of an enforcement proceeding.* An adjudicative proceeding under this part is commenced by the issuance of a complaint by the NHTSA.

(b) *Form and content of complaint.* The complaint shall be signed by the Complaint Counsel and shall contain the following:

(1) Recital of the legal authority for instituting the proceeding, with specific designation of the statutory provisions involved in each allegation.

(2) Identification of each respondent.

(3) A clear and concise statement of the charges, sufficient to inform each respondent with reasonable definiteness of the factual basis of the allegations of violation. A list and summary of documentary evidence supporting the charges shall be attached.

(4) A statement of the civil penalty which the Complaint Counsel believes is in the public interest, or which is required by law. In the case of civil penalties assessed for violations of section 507(3) of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 2007(3)), the amount of such penalty shall be calculated from the time of the alleged violation. In the case of civil penalties assessed for violations of section 507 (1) or (2) of that Act, any monetary credits available to offset those civil penalties shall be specified.

(5) The right of the respondent to a hearing on the alleged violations.

(c) *Notice to the Public.* Once a complaint is issued, notice of it shall be

immediately submitted to the FEDERAL REGISTER for publication. The notice in the FEDERAL REGISTER shall briefly describe the nature of the proceeding and state that petitions to participate in the proceeding must be filed no later than the first prehearing conference.

§ 511.12 Answer.

(a) *Time for filing.* A respondent shall have twenty (20) days after service of a complaint within which to file an answer.

(b) *Content of answer.* An answer shall conform to the following:

(1) *Request for hearing.* Respondent shall state whether it requests a full, adjudicatory hearing or whether it desires to proceed on the basis of written submissions. If a hearing is requested, respondent shall specify those issues on which a hearing is desired.

(2) *Contested allegations.* An answer in which the allegations of a complaint are contested shall contain:

(i) *Specific admission or denial of each allegation in the complaint.* If the respondent is without knowledge or information sufficient to form a belief as to the truth of an allegation, respondent shall so state. Such a statement shall have the effect of a denial. Denials shall fairly meet the substance of the allegations denied. Allegations not thus answered shall be deemed to have been admitted.

(ii) *A concise statement of the factual and/or legal defenses to each allegation of the complaint.*

(3) *Admitted allegations.* If the respondent admits or fails to deny any factual allegation, he or she shall be deemed to have waived a hearing as to such allegation.

(c) *Default.* Failure of the respondent to file an answer within the time provided (or within an extended time, if provided), shall be deemed to constitute a waiver of the right to appear and contest the allegations set forth in the complaint and to authorize the Presiding Officer to make such findings of fact, as are reasonable under the circumstances.

§ 511.13 Amendments and supplemental pleadings.

Whenever determination of a controversy on the merits will be facilitated thereby, the Presiding Officer upon motion, may allow appropriate amendments and supplemental pleadings which do not unduly broaden the issues in the proceeding or cause undue delay.

§ 511.14 Form and filing of documents.

(a) *Filing.* Except as otherwise provided, all documents submitted to the Administrator or a Presiding Officer shall be addressed to and filed with the Executive Secretary. Documents may be filed in person or by mail and shall be deemed filed on the day of filing or mailing.

(b) *Caption.* Every document shall contain a caption setting forth the name of the action in connection with which it is filed, the docket number, and the title of the document.

(c) *Copies.* An original and nine (9) copies of all documents shall be filed. Documents may be reproduced by printing or any other process, provided that all copies filed are clear and legible.

(d) *Signature.* (1) The original of each document filed shall be signed by a representative of record for the party; or in the case of parties not represented, by the party; or by a partner, officer, or regular employee of any corporation, partnership, or association, who files an appearance on behalf of the party.

(2) The act of signing a document constitutes a representation by the signer that the signer has read it; that to the best of the signer's knowledge, information and belief, the statements made in it are true; and that it is not filed for purposes of delay.

§ 511.15 Time.

(a) *Computation.* In computing any period of time prescribed or allowed by the rules in this part, the day of the act, event, or default from which the designated period of time begins to run shall not be included. The last day of the period so computed shall be included, unless it is a Saturday, a Sunday, or a legal holiday, in which

event the period runs until the end of the next day which is not a Saturday, a Sunday, or a legal holiday. When the period of time prescribed or allowed is less than 7 days, intermediate Saturdays, Sundays, and legal holidays shall be excluded in the computation. As used in this part, "legal holiday" includes New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, Christmas Day, and any other day appointed as a holiday by the President or the Congress of the United States.

(b) *Additional Time After Service by Mail.* Whenever a party is required or permitted to do an act within a prescribed period after service of a document and the document is served by mail, three (3) days shall be added to the prescribed period.

(c) *Extensions.* For good cause shown, the Presiding Officer may extend any time limit prescribed or allowed under this part or by order of the Administrator or the Presiding Officer, except those governing the filing of interlocutory appeals and appeals from Initial Decisions and those expressly requiring the Administrator's action. Except as otherwise provided by law, the Administrator, for good cause shown, may extend any time limit prescribed under this part, or by order of the Administrator or the Presiding Officer. A party or participant may petition the Presiding Officer or the Administrator, as appropriate, for an extension under this paragraph. Such a petition shall be filed prior to the occurrence of the time limit which is the subject of the petition.

§ 511.16 Service.

(a) *Mandatory service.* Every document filed with the Executive Secretary shall be served upon all parties and participants to a proceeding, i.e., Complaint Counsel, respondent(s), and participants, and upon the Presiding Officer.

(b) *Service of complaint, ruling, order, decision, or subpoena.* Service of a complaint, ruling, order, decision, or subpoena may be effected as follows:

(1) *By registered or certified mail.* A copy of the document shall be ad-

dressed to the person, partnership, corporation or unincorporated association to be served at his or its residence or principal office or place of business; registered or certified; and mailed; or

(2) *By delivery to an individual.* A copy of the document may be delivered to the person to be served; or to a member of the partnership to be served; or to the president, secretary, or other executive officer, or a director of the corporation or unincorporated association to be served; or to an agent authorized by appointment or by law to receive service; or

(3) *By delivery to an address.* A copy of the document may be left at the principal office or place of business of the person, partnership, corporation, unincorporated association, or authorized agent with an officer, a managing or general agent; or it may be left with a person of suitable age and discretion residing therein, at the residence of the person or of a member of the partnership or of an executive officer, director, or agent of the corporation or unincorporated association to be served.

(c) *Service of documents with prescribed response periods.* When service of a document starts the running of a prescribed period of time for the submission of a responsive document or the occurrence of an event, the document shall be served as provided in paragraph (b) of this section.

(d) *Service of other documents.* All documents other than those specified in paragraph (c) of this section may be served as provided in paragraph (b) of this section, or by ordinary first-class mail, properly addressed, postage prepaid.

(e) *Service on a representative.* When a party has appeared by an attorney or other representative, service upon that attorney or other representative shall constitute service on the party.

(f) *Certificate of service.* The original of every document filed with the agency and required to be served upon all parties to a proceeding shall be accompanied by a certificate of service signed by the party making service, stating that such service has been made upon each party to the proceed-

ing. Certificates of service may be in substantially the following form:

I hereby certify that I have this day served the foregoing document upon all parties of record in this proceeding by mailing, postage prepaid (or by delivering in person) a copy to each such party.

Dated at _____ this ____ day of _____, 19____.
(Signature) _____
For _____

(g) *Date of Service.* The date of service of a document shall be the date on which the document is deposited in the United States mail or is delivered in person.

§ 511.17 Public participation.

Participant Status. Any person interested in a proceeding commenced pursuant to § 511.11 who desires to participate in the proceeding, shall file with the Executive Secretary a notice of intention to participate in the proceeding and shall serve a copy of such notice on each party to the proceeding. A notice of intention to participate shall be filed not later than the commencement of the hearing. Untimely filings will not be accepted absent a determination by the Presiding Officer that the person making the request has made a substantial showing of good cause for failure to file on time. Any person who files a notice to participate in the proceeding as a nonparty shall be known as a "participant" and shall have the rights specified in § 511.41(d).

§ 511.18 Joinder of proceedings.

Two or more matters which have been scheduled for adjudicative proceedings, and which involve one or more common questions of law or fact, may be consolidated for the purpose of hearing, appeal or the Administrator's review. A motion for consolidation for the purpose of hearing may be filed with the Presiding Officer by any party to such proceedings not later than thirty (30) days prior to the hearing. A motion for consolidation for the purpose of appeal may be filed by any party to such proceedings within 10 days after issuance of the Initial Decision. A motion to consolidate shall be served upon all parties to all proceedings whose joinder is con-

templated. The proceedings may be consolidated where to do so would tend to avoid unnecessary costs or delay. Such consolidation may also be ordered upon the initiative of the Presiding Officer or the Administrator, as appropriate. The Presiding Officer may order separate hearings on any issue where to do so would promote economy or convenience or would avoid prejudice to a party.

Subpart C—Prehearing Procedures; Motions; Interlocutory Appeals; Summary Judgment; Settlement

§ 511.21 Prehearing conferences.

(a) *When held.* (1) A prehearing conference shall be held in person or by conference telephone call, except in unusual circumstances, approximately fifty (50) days after publication in the FEDERAL REGISTER of the complaint, upon ten (10) days notice to all parties and participants, to consider any or all the following:

- (i) Motions for consolidation of proceedings;
- (ii) Identification, simplification and clarification of the issues;
- (iii) Necessity or desirability of amending the pleadings;
- (iv) Stipulations and admissions of fact and of the content and authenticity of documents;
- (v) Oppositions to notices of oral examination;
- (vi) Motions for protective orders to limit or modify discovery;
- (vii) Issuance of subpoenas to compel the appearance of witnesses and the production of documents;
- (viii) Limitation of the number of witnesses, particularly the avoidance of duplicate expert witnesses;
- (ix) Matters of which official notice will be taken and matters which may be resolved by reliance upon findings of other Federal agencies; and
- (x) Other matters which may expedite the conduct of the hearing.

§ 511.22 Prehearing briefs.

Not later ten (10) days prior to the hearing, the parties shall, except when ordered otherwise by the Presiding Officer in unusual circumstances, simultaneously serve and file prehearing

briefs, which shall set forth (a) a statement of the facts expected to be proved, and of the anticipated order of proof; (b) a statement of the issues and the legal argument in support of the party's contentions with respect to each issue; and (c) a table of authorities with a designation by asterisk of the principal authorities relied upon.

§ 511.23 Motions.

(a) *Presentations and dispositions.* During the time a proceeding is before a Presiding Officer, all motions, whether oral or written, except those filed under § 511.42(e), shall be addressed to the Presiding Officer, who shall rule upon them promptly after affording an opportunity for response.

(b) *Written motions.* All written motions shall state the particular order, ruling, or action desired and the grounds therefor. If a motion is supported by memoranda, affidavits or other documents, they shall be served and filed with the motion. All motions shall contain a proposed order setting forth the relief sought. All written motions shall be filed with the Executive Secretary and served on all parties, and all motions addressed to the Administrator shall be in writing.

(c) *Responses.* Within ten (10) days after service of any written motion or petition or within such longer or shorter time as may be designated by these Rules or by the Presiding Officer or the Administrator, the opposing party or parties shall file a written response to such motion. Where a motion would affect only a single party, or an identifiable group of parties, the Presiding Officer or Administrator may limit the response to the motion to the affected party or parties. Failure to respond to a written motion may, in the discretion of the Presiding Officer be deemed as consent to the granting of the relief sought in the motion. The moving party shall have no right to reply, except as permitted by the Presiding Officer or the Administrator.

(d) *Rulings on motions for dismissal.* When a motion to dismiss a complaint or motion for other relief is granted with the result that the proceeding before the Presiding Officer is terminated, the Presiding Officer shall

issue an Initial Decision and Order thereon in accordance with the provisions of § 511.51. If such a motion is granted as to all issues alleged in the complaint in regard to some, but not all, the respondents, or is granted as to any part of the allegations in regard to any or all the respondents, the Presiding Officer shall enter an order on the record and consider the remaining issues in the Initial Decision. The Presiding Officer may elect to defer ruling on a motion to dismiss until the close of the case.

§ 511.24 Interlocutory appeals.

(a) *General.* Rulings of the Presiding Officer may not be appealed to the Administrator prior to the Initial Decision, except as provided herein.

(b) *Exceptions—(1) Interlocutory appeals to Administrator.* The Administrator may, in his or her discretion, entertain interlocutory appeals where a ruling of the Presiding Officer:

(i) Requires the production or disclosure of records claimed to be confidential;

(ii) Requires the testimony of a supervisory official of the agency other than one especially cognizant of the facts of the matter in adjudication;

(iii) Excludes an attorney from participation in a proceeding pursuant to § 511.42(b).

(2) *Procedures for interlocutory appeals.* Within ten (10) days of issuance of a ruling, any party may petition the Administrator to entertain an interlocutory appeal on a ruling in the categories enumerated above. The petition shall not exceed fifteen (15) pages. Any other party may file a response to the petition within ten (10) days of its service. The response shall not exceed fifteen (15) pages. The Administrator shall thereupon act upon the petition, or the Administrator shall request such further briefing or oral presentation as he may deem necessary.

(3) *Interlocutory appeals from all other rulings—(1) Grounds.* Interlocutory appeals from all other rulings by the Presiding Officer may proceed only upon motion to the Presiding Officer and a determination by the Presiding Officer in writing, with justification in support thereof, that the

ruling involves a controlling question of law or policy as to which there is substantial ground for differences of opinion and that an immediate appeal from the ruling may materially advance the ultimate termination of the litigation, or that subsequent review will be an inadequate remedy.

(ii) *Form.* If the Presiding Officer determines, in accordance with paragraph (b)(3)(i) of this section that an interlocutory appeal may proceed a petition for interlocutory appeal may be filed with and acted upon by the Administrator in accordance with paragraph (b)(2) of this section.

(c) *Proceedings not stayed.* A petition for interlocutory appeal under this part shall not stay the proceedings before the Presiding Officer unless the Presiding Officer shall so order, except that a ruling of the Presiding Officer requiring the production of records claimed to be confidential shall be automatically stayed for a period of (10) days following the issuance of such ruling to allow an affected party the opportunity to file a petition for an interlocutory appeal pursuant to § 511.24(b)(2). The filing of such a petition shall automatically extend the stay of such a ruling pending the Administrator's action on such petition.

§ 511.25 Summary decision and order.

(a) *Motion.* Any party may move, with a supporting memorandum, for a Summary Decision and Order in its favor upon all or any of the issues in controversy. Complaint Counsel may so move at any time after thirty (30) days following issuance of a complaint, and any other party may so move at any time after issuance of a complaint. Any such motion by any party shall be filed at least twenty (20) days before the date fixed for the adjudicatory hearing.

(b) *Response to motion.* Any other party may, within ten (10) days after service of the motion, file a response thereto with a supporting memorandum.

(c) *Grounds.* A Summary Decision and Order shall be granted if the pleadings and any testimony upon oral examination, answers to interrogatories, admissions, and/or affidavits

show that there is no genuine issue as to any material fact and that the moving party is entitled to a Summary Decision and Order as a matter of law.

(d) *Legal effect.* A Summary Decision and Order upon all the issues being adjudicated shall constitute the Initial Decision of the Presiding Officer, and may be appealed to the Administrator in accordance with § 511.53. A Summary Decision, interlocutory in character, may be rendered on fewer than all issues and may not be appealed prior to issuance of the Initial Decision, except in accordance with § 511.24.

(e) *Case not fully adjudicated on motion.* A Summary Decision and Order that does not dispose of the whole case shall include a statement of those material facts as to which there is no substantial controversy, and of those material facts that are actually and in good faith controverted. The Summary Order shall direct such further proceedings as are just.

§ 511.26 Settlement.

(a) *Applicability.* This section applies only to cases of alleged violations of section 507(3) of the Motor Vehicle Information and Cost Savings Act, Pub. L. 94-163, 89 Stat. 911 (15 U.S.C. section 2007(3)). Settlement in other cases may be made only in accordance with Subpart G of this part.

(b) *Availability.* Any party shall have the opportunity to submit an offer of settlement to the Presiding Officer.

(c) *Form.* Offers of settlement shall be in the form of a consent agreement and order, shall be signed by the party submitting the offer or his representative, and may be signed by any other party. Each offer of settlement shall be accompanied by a motion to transmit to the Administrator the proposed agreement and order, outlining the substantive provisions of the agreement, and the reasons why it should be accepted.

(d) *Contents.* The proposed consent agreement and order which constitute the offer of settlement shall be contain the following:

(1) An admission of all jurisdictional facts;

(2) An express waiver of further procedural steps, and of all rights to seek judicial review or otherwise to contest the validity of the order;

(3) A description of the alleged non-compliance, or violation;

(4) Provisions to the effect that the allegations of the complaint are resolved by the proposed consent agreement and order;

(5) A listing of the acts or practices from which the respondent shall refrain;

(6) A detailed statement of the corrective action(s) which the respondent shall execute and the civil penalty, if any, that respondent shall pay.

(e) *Transmittal.* The Presiding Officer shall transmit to the Administrator for decision all offers of settlement and accompanying memoranda that meet the requirements enumerated in paragraph (d) of this section. The Presiding Officer may, but need not, recommend acceptance or rejection of such offers. Any party or participant, may object to a proposed consent agreement by filing a motion and supporting memorandum with the Administrator.

(f) *Stay of proceedings.* When an offer of settlement has been agreed to by the parties and has been transmitted to the Administrator, the proceedings shall be stayed until the Administrator has ruled on the offer. When an offer of settlement has been made and transmitted to the Administrator but has not been agreed to by all parties, the proceedings shall not be stayed pending the Administrator's decision on the offer.

(g) *Administrator's ruling.* The Administrator will rule upon all transmitted offers of settlement. If the Administrator accepts the offer, the Administrator shall issue an appropriate order. The order shall become effective upon issuance. In determining whether to accept an offer of settlement, the Administrator will consider the gravity of the alleged violation, and any good faith efforts by the respondent to comply with applicable requirements.

(h) *Rejection.* If the Administrator rejects an offer of settlement, the Executive Secretary shall give written notice of that decision and the reasons therefor to the parties and the Presid-

ing Officer. Promptly thereafter, the Presiding Officer shall issue an order notifying the parties of the resumption of the proceedings, including any modifications to the schedule resulting from the stay of the proceedings.

(i) *Effect of rejected offer.* Rejected offers of settlement shall not be admissible in evidence over the objection of any signatory, nor shall the fact of the proposal of the offer be admissible in evidence.

Subpart D—Discovery; Compulsory Process

§ 511.31 General provisions governing discovery.

(a) *Applicability.* The discovery rules established in this subpart are applicable to the discovery of information among the parties to a proceeding. Parties seeking information from persons not parties may do so by subpoena in accordance with § 511.38.

(b) *Discovery methods.* Parties may obtain discovery by one or more of the following methods: (1) Written interrogatories; (2) requests for production of documents or things; (3) requests for admissions; or (4) testimony upon oral examination. Unless the Presiding Officer otherwise orders under paragraph (d) of this section, the frequency of use of these methods is not limited.

(c) *Scope of discovery.* The scope of discovery is as follows:

(1) *In general.* Parties may obtain discovery regarding any matter not privileged, which is relevant to the subject matter involved in the proceedings, whether it relates to the claim or defense of the party seeking discovery or to the claim or defense of any other party. It is not ground for objection that the information sought will be inadmissible at the hearing if the information sought appears reasonably calculated to lead to the discovery of admissible evidence.

(2) *Exception.* Parties may not obtain discovery of documents which accompanied the staff's recommendation as to whether a complaint should issue or of documents or portions thereof which would be exempt from

discovery under Rule 26(b)(3) of the Federal Rules of Civil Procedure.

(3) *Hearing preparation: Experts.* A party may obtain discovery of facts known and opinions held by experts, regardless of whether they are acquired or developed in anticipation of or for litigation. Such discovery may be had by any of the methods provided in paragraph (b) of this section.

(d) *Protective orders.* Upon motion by a party or person and for good cause shown, the Presiding Officer may make any order which justice requires to protect such party or person from annoyance, embarrassment, competitive disadvantage, oppression or undue burden or expense, including one or more of the following: (1) That the discovery shall not be had; (2) that the discovery may be had only on specified terms and conditions, including a designation of the time and/or place; (3) that the discovery shall be had only by a method of discovery other than that selected by the party seeking discovery; (4) that certain matters shall not be inquired into, or that the scope of discovery shall be limited to certain matters; (5) that discovery shall be conducted with no one present except persons designated by the Presiding Officer; (6) that a trade secret or other confidential research, development, or commercial information shall not be disclosed or shall be disclosed only in a designated way or only to designated parties; and (7) that responses to discovery shall be placed *in camera* in accordance with § 511.45.

If a motion for a protective order is denied in whole or in part, the Presiding Officer may, on such terms or conditions as are just, order that any party provide or permit discovery.

(e) *Sequence and timing of discovery.* Discovery may commence at any time after filing of the answer. Unless otherwise provided in these Rules or by order of the Presiding Officer, methods of discovery may be used in any sequence and the fact that a party is conducting discovery shall not operate to delay any other party's discovery.

(f) *Supplementation of responses.* A party who has responded to a request for discovery shall supplement the re-

sponse with information thereafter acquired.

(g) *Completion of discovery.* All discovery shall be completed as soon as practical but in no case longer than one hundred fifty (150) days after issuance of a complaint unless otherwise ordered by the Presiding Officer in exceptional circumstances and for good cause shown. All discovery shall be served by a date which affords the party from whom discovery is sought the full response period provided by these Rules.

(h) *Service and filing of discovery.* All discovery requests and written responses, and all notices of the taking of testimony, shall be filed with the Executive Secretary and served on all parties and the Presiding Officer.

(i) *Control of discovery.* The use of these discovery procedures is subject to the control of the Presiding Officer, who may issue any just and appropriate order for the purpose of ensuring their timely completion.

§ 511.32 Written interrogatories to parties.

(a) *Availability; procedures for use.* Any party may serve upon any other party written interrogatories to be answered by the party served or, if the party served is a public or private corporation or a partnership or association or governmental agency, by any officer or agent, who shall furnish such information as is available to the party. Interrogatories may, without leave of the Presiding Officer, be served upon any party after filing of the answer.

(b) *Procedures for response.* Each interrogatory shall be answered separately and fully in writing under oath, unless it is objected to, in which event the reasons for objection shall be stated in lieu of an answer. The answers are to be signed by a responsible representative of the respondent and the objections signed by the representative making them. The party upon whom the interrogatories have been served shall serve a copy of the answers, and objections if any, within 30 days after service of the interrogatories. The Presiding Officer may allow a shorter or longer time for response. The party submitting the interrogato-

ries may move for an order under § 511.36 with respect to any objection to or other failure to answer an interrogatory.

(c) *Scope of interrogatories.* Interrogatories may relate to any matters which can be inquired into under § 511.31(c)(1), and the answers may be used to the extent permitted under this part. An interrogatory otherwise proper is not objectionable merely because an answer to the interrogatory would involve an opinion or contention that relates to fact or to the application of law to fact, but the Presiding Officer may order that such an interrogatory need not be answered until a later time.

(d) *Option to produce business records.* Where the answer to an interrogatory may be derived or ascertained from the business records of the party upon whom the interrogatory has been served, or from an examination, audit or inspection of such business records, or from a compilation, abstract or summary based thereon, and the burden of deriving the answer is substantially the same for the party serving the interrogatory as for the party served, it is a sufficient answer to the interrogatory to specify the records from which the answer may be derived or ascertained and to afford to the party serving the interrogatory reasonable opportunity to examine, audit or inspect such records and to make copies, compilations, abstracts, or summaries.

§ 511.33 Production of documents and things.

(a) *Scope.* Any party may serve upon any other party a request (1) to produce and permit the party making the request, or someone acting on behalf of that party, to inspect and copy any designated documents (including writings, drawings, graphs, charts, photographs, phono-records, and any other data-compilation from which information can be obtained, translated, if necessary, by the party in possession into reasonably usable form), or (2) to inspect and copy, test or sample tangible things which constitute or contain matters within the scope of § 511.31(c)(1) and which are in the possession, custody or control of

the party upon whom the request is served.

(b) *Procedure for request.* The request may be served at any time after the filing of the answer without leave of the Presiding Officer. The request shall set forth the items to be inspected either by individual item or by category, and shall describe each item or category with reasonable particularity. The request shall specify a reasonable time, place and manner for making the inspection and performing the related acts.

(c) *Procedure for response.* The party upon whom the request is served shall serve a written response within twenty (20) days after service of the request. The Presiding Officer may allow a shorter or longer time for response. The response shall state, with respect to each item or category requested, that inspection and related activities will be permitted as requested, unless the request is objected to, in which event the reasons for objection shall be stated. If objection is made to only part of an item or category, that part shall be so specified. The party submitting the request may move for an order under § 511.36 with respect to any objection to or other failure to respond to the request or any part thereof, or to any failure to permit inspection as requested.

§ 511.34 Requests for admission.

(a) *Procedure for request.* A party may serve upon any other party a written request for the admission, for the purposes of the pending proceeding only, of the truth of any matters within the scope of § 511.31(c)(1) set forth in the request that relate to statements or opinions of fact or if the application of law to fact, including the genuineness of documents described in the request. Copies of documents shall be served with the request unless they have been, or are otherwise, furnished or made available for inspection and copying. The request may, without leave of the Presiding Officer, be served upon any party after filing of the answer. Each matter as to which an admission is requested shall be separately set forth.

(b) *Procedure for response.* The matter as to which an admission is requested is deemed admitted unless within thirty (30) days after service of the request, or within such shorter or longer time as the Presiding Officer may allow, the party to whom the request is directed serves upon the party requesting the admission a written answer or objection addressed to the matter, signed by the party or the party's representatives. If objection is made, the reasons therefore shall be stated.

The answer shall specifically admit or deny the matter or set forth in detail the reasons why the answering party cannot truthfully admit or deny the matter. A denial shall fairly meet the substance of the requested admission. When good faith requires that a party qualify an answer or deny only a part of the matter as to which an admission is requested, the party shall specify the portion that is true and qualify or deny the remainder. An answering party may not give lack of information or knowledge as a reason for failure to admit or deny, unless the party states that he or she has made reasonable inquiry and that the information known or readily available to him or her is insufficient to enable him or her to admit or deny. A party who considers that a matter as to which an admission has been requested presents a genuine issue for hearing may not, on that ground alone, object to the request but may deny the matter or set forth reasons why the party cannot admit or deny it. The party who has requested an admission may move to determine the sufficiency of the answer or objection thereto in accordance with § 511.36. If the Presiding Officer determines that an answer does not comply with the requirements of this section, he or she may order that the matter be deemed admitted or that an amended answer be served.

(c) *Effect of admission.* Any matter admitted under this section is conclusively established unless the Presiding Officer on motion permits withdrawal or amendment of such admission. The Presiding Officer may permit withdrawal or amendment when the presentation of the merits of the action will be served thereby and the party

that obtained the admission fails to satisfy the Presiding Officer that withdrawal or amendment will prejudice that party in maintaining an action or defense on the merits.

§ 511.35 Testimony upon oral examination.

(a) *When testimony may be taken.* At any time after the answer is filed under § 511.12, upon leave of the Presiding Officer and under such terms and conditions as the Presiding Officer may prescribe, any party may take the testimony of any other party, including the agents, employees, consultants or prospective witnesses of that party at a place convenient to the witness. The attendance of witnesses and the production of documents and things at the examination may be compelled by subpoena as provided in § 511.38.

(b) *Notice of oral examination—(1) Examination of a party.* A party desiring to examine another party to the proceeding shall, after obtaining leave from the Presiding Officer, serve written notice of the examination on all other parties and the Presiding Officer at least ten (10) days before the date of the examination. The notice shall state (i) the time and place for making the examination; (ii) the name and address of each person to be examined, if known, or if the name is not known, a general description sufficient to identify him; and (iii) the subject matter of the expected testimony. If a subpoena *duces tecum* is to be served on the person to be examined, the designation of the materials to be produced, as set forth in the subpoena, shall be attached to or included in the notice of examination.

(2) *Examination of a nonparty.* A party desiring to examine a person who is not a party to the proceeding shall make application for a subpoena, in accordance with § 511.38, to compel the attendance, testimony and/or production of documents by such person who is not a party. The party desiring such examination shall serve written notice of the examination on all other parties to the proceeding, after issuance of the subpoena by the Presiding Officer of a designated alternate.

(3) *Opposition to notice.* A person served with a notice of examination may, within 3 days of the date of service, oppose, in writing, the examination. The Presiding Officer shall rule on the notice and any opposition and may order the taking of all noticed examinations, upon a showing of good cause therefor. The Presiding Officer may, for good cause shown, enlarge or shorten the time for the taking of an examination.

(c) *Persons before whom examinations may be taken.* Examinations may be taken before any person authorized to administer oaths by the laws of the United States or of the place where the examination is held. No examination shall be taken before a person who is a relative or employee or attorney or representative of any party, or who is a relative or employee of such attorney or representative, or who is financially interested in the action.

(d) *Procedure—(1) Examination.* Each witness shall be duly sworn, and all testimony shall be duly recorded. All parties or their representatives may be present and participate in the examination. Examination and cross-examination of witnesses may proceed as permitted at the hearing. Questions objected to shall be answered subject to the objections. Objections shall be in short form, and shall state the grounds relied upon. The questions propounded and the answers thereon, together with all objections made, shall be recorded by the official reporter before whom the examination is made. The original or a verified copy of all documents and things produced for inspection during the examination of the witness shall, upon a request of any party present, be marked for identification and annexed to the record of the examination.

(2) *Motion to terminate or limit examination.* At any time during the examination, upon motion of any party or of the witness, and upon showing that the examination is being conducted in bad faith or in such manner as unreasonably to annoy, embarrass or oppress the witness or party, the Presiding Officer may, upon motion, order the party conducting the examination to terminate the examination, or may limit the scope and manner of

the examination as provided in § 511.31(d).

(3) *Participation by parties not present.* In lieu of attending an examination, any party may serve written questions in a sealed envelope on the party conducting the examination. That party shall transmit the envelope to the official reporter, who shall unseal it and propound the questions contained therein to the witness.

(e) *Transcription and filing of testimony—(1) Transcription.* Upon request by any party, the testimony recorded at an examination shall be transcribed. When the testimony is fully transcribed, the transcript shall be submitted to the witness for examination and signing, and shall be read to or by the witness, unless such examination and signature are waived by the witness. Any change in form or substance which the witness desires to make shall be entered upon the transcript of the official reporter with a statement of the reasons given by the witness for making them. The transcript shall then be signed by the witness, unless the parties by stipulation waive the signing, or the witness is ill or cannot be found or refuses to sign. If the transcript is not signed by the witness within thirty (30) days of its submission to him, the official reporter shall sign it and state on the record the fact of the waiver of signature or of the illness or absence of the witness or the fact of the refusal to sign, together with a statement of the reasons therefor. The testimony may then be used as fully as though signed, in accordance with paragraph (1) of this section.

(2) *Certification and filing.* The official reporter shall certify on the transcript that the witness was duly sworn and that the transcript is a true record of the testimony given and corrections made by the witness. The official reporter shall then seal the transcript in an envelope endorsed with the title and docket number of the action and marked "Testimony of [name of witness]" and shall promptly file the transcript with the Executive Secretary. The Executive Secretary shall notify all parties of the filing of the transcript and shall furnish a copy of the transcript to any party or to the

witness upon payment of reasonable charges therefor.

(f) *Costs of examination.* The party who notices the examination shall pay for the examination. The party who requests transcription of the examination shall pay for the transcription.

(g) *Failure to attend or to serve subpoena; expenses.* If a party who notices an examination fails to attend and proceed therewith and another party attends in person or by a representative pursuant to the notice, the Presiding Officer may order the party who gave the notice to pay the attending party the reasonable expenses incurred. If a party who notices an examination fails to serve a subpoena upon the witness and as a result the witness does not attend, and if another party attends in person or by a representative because that party expects the examination to be made, the Presiding Officer may order the party who gave notice to pay the attending party the reasonable expenses incurred.

(h) *Examination to preserve testimony—(1) When available.* By leave of the Presiding Officer, a party may examine a witness for the purpose of perpetuating the testimony of that witness. A party who wishes to conduct such an examination shall obtain prior leave of the Presiding Officer by filing a motion. The motion shall include a showing of substantial reason to believe that the testimony could not be presented at the hearing. If the Presiding Officer is satisfied that the perpetuation of the testimony may prevent a failure of justice or is otherwise reasonably necessary, he or she shall order that the deposition be taken.

(2) *Procedure.* Notice of an examination to preserve testimony shall be served at least fifteen (15) days prior to the examination. The examination shall be taken in accordance with the provisions of paragraph (d) of this section. Any examination taken to preserve testimony shall be fully transcribed and filed in accordance with paragraph (e) of this section.

(i) *Use of testimony obtained under this section.* At the hearing or upon a motion or an interlocutory proceeding, any part or all of a deposition, so far

as admissible under the rules of evidence applied as though the witness were then present and testifying, may be used against any party who was present or represented at the taking of the deposition or who had reasonable Notice thereof, in accordance with any of the following provisions:

(1) Any deposition may be used by any party for the purpose of contradicting or impeaching the testimony of deponent as a witness.

(2) The deposition of a party or of a person who at the time of the taking of his testimony was an officer, director or managing agent of a party may be used against that party for any purpose.

(3) The deposition of a witness, whether or not a party, may be used by any party for any purpose if the Presiding Officer finds:

(i) That the witness is dead; or

(ii) That the witness is at a greater distance than 100 miles from the place of the hearing, or is out of the United States, unless it appears that the absence of the witness was procured by the party offering the deposition; or

(iii) That the witness is unable to attend or testify because of age, illness, infirmity, or imprisonment; or

(iv) That the party offering the deposition has been unable to procure the attendance of the witness by subpoena; or

(v) Upon application and notice, that such exceptional circumstances exist as to make it desirable, in the interest of justice and with due regard to the importance of presenting the testimony of witnesses orally in open court, to allow the deposition to be used.

(4) If only part of a deposition is offered in evidence by a party, an adverse party may require him to introduce any other part which ought in fairness to be considered with the part introduced, and any party may introduce any other parts.

§ 511.36 Motions to compel discovery.

If a party fails to respond to discovery, in whole or in part, the party seeking discovery may move within twenty (20) days for an order compelling an answer, or compelling inspection or production of documents, or

otherwise compelling discovery. For purposes of this subsection, an evasive or incomplete response is to be treated as a failure to respond. If the motion is granted, the Presiding Officer shall issue an order compelling discovery. If the motion is denied in whole or in part, the Presiding Officer may make such protective order as it would have been empowered to make on a motion pursuant to § 511.31(d). When making oral examinations, the discovering party shall continue the examination to the extent possible with respect to other areas of inquiry before moving to compel discovery.

§ 511.37 Sanctions for failure to comply with order.

If a party fails to obey an order to provide or permit discovery, the Presiding Officer may take such action as is just, including but not limited to the following:

(a) Infer that the admission, testimony, document of other evidence would have been adverse to the party;

(b) Order that for the purposes of the proceeding, the matters regarding which the order was made or any other designated facts shall be taken to be established in accordance with the claim of the party obtaining the order;

(c) Order that the party withholding discovery not introduce into evidence or otherwise rely, in support of any claim or defense, upon the documents or other evidence withheld;

(d) Order that the party withholding discovery not introduce into evidence or otherwise use at the hearing, information obtained in discovery;

(e) Order that the party withholding discovery not be heard to object to introduction and use of secondary evidence to show what the withheld admission, testimony documents, or other evidence would have shown;

(f) Order that a pleading, or part of a pleading, or a motion or other submission by the party, concerning which the order was issued, be stricken, or that decision on the pleadings be rendered against the party, or both; and

(g) Exclude the party or representative from proceedings, in accordance with § 511.42(b).

Any such action may be taken by order at any point in the proceedings.

§ 511.38 Subpenas.

(a) *Availability.* A subpoena shall be addressed to any party or any person not a party for the purpose of compelling attendance, testimony and production of documents at a hearing or oral examination.

(b) *Form.* A subpoena shall identify the action with which it is connected; shall specify the person to whom it is addressed and the date, time and place for compliance with its provisions; and shall be issued by order of the Presiding Officer and signed by the Executive Secretary or by the Presiding Officer. A subpoena *duces tecum* shall specify the books, papers, documents, or other materials or data-compilations to be produced.

(c) *How obtained—(1) Content of application.* An application for the issuance of a subpoena stating reasons shall be submitted in triplicate to the Presiding Officer.

(2) *Procedure of application.* The original and two copies of the subpoena, marked "original," "duplicate" and "triplicate," shall accompany the application. The Presiding Officer shall rule upon an application for a subpoena *ex parte*, by issuing the subpoena or by issuing an order denying the application.

(d) *Issuance of a subpoena.* The Presiding Officer shall issue a subpoena by signing and dating, or ordering the Executive Secretary to sign and date, each copy in the lower right-hand corner of the document. The "duplicate" and "triplicate" copies of the subpoena shall be transmitted to the applicant for service in accordance with these Rules; the "original" copy shall be retained by or be forwarded to the Executive Secretary for retention in the docket of the proceeding.

(e) *Service of a subpoena.* A subpoena may be served in person or by certified mail, return receipt requested, as provided in § 511.16(b). Service shall be made by delivery of the signed "duplicate" copy to the person named therein.

(f) *Return of service.* A person serving a subpoena shall promptly execute a

return of service, stating the date, time, and manner of service. If service is effected by mail, the signed return receipt shall accompany the return of service. In case of failure to make service, a statement of the reasons for the failure shall be made. The "triplicate" of the subpoena, bearing or accompanied by the return of service, shall be returned forthwith to the Executive Secretary after service has been completed.

(g) *Motion to quash or limit subpoena.* Within five (5) days of receipt of a subpoena, the person against whom it is directed may file with the Presiding Officer a motion to quash, modify, or limit the subpoena, setting forth the reasons why the subpoena should be withdrawn or why it should be modified or limited in scope. Any such motion shall be answered within five (5) days of service, and shall be ruled on immediately thereafter. The order shall specify the date, if any, for compliance with the specifications of the subpoena and the reasons for the decision.

(h) *Consequences of failure to comply.* In the event of failure to comply with a subpoena, the Presiding Officer may take any of the actions enumerated in § 511.37 or may order any other appropriate relief to compensate for the withheld testimony, documents, or other materials. If in the opinion of the Presiding Officer such relief is insufficient, the Presiding Officer shall certify to the Administrator a request for judicial enforcement of the subpoena.

§ 511.39 Orders requiring witnesses to testify or provide other information and granting immunity.

(a) A party who desires the issuance of an order requiring a witness to testify or provide other information upon being granted immunity from prosecution under title 18, U.S.C., section 6002, may make a motion to that effect. The motion shall be made and ruled on in accordance with § 511.22, and shall include a showing:

(1) That the testimony or other information sought from a witness or prospective witness may be necessary to the public interest; and

(2) That such individual has refused or is likely to refuse to testify or provide such information on the basis of that individual's privilege against self-incrimination.

(b) If the Presiding Officer determines that the witness' testimony appears necessary and that the privilege against self-incrimination may be invoked, he or she may certify to the Administrator a request that he or she obtain the approval of the Attorney General of the United States for the issuance of an order granting immunity.

(c) Upon application to and approval of the Attorney General of the United States, and after the witness has invoked the privilege against self-incrimination, the Presiding Officer shall issue the order granting immunity unless he or she determines that the privilege was improperly invoked.

(d) Failure of a witness to testify after a grant of immunity or after a denial of the issuance of an order granting immunity shall result in the imposition of appropriate sanctions as provided in § 511.37.

Subpart E—Hearings

§ 511.41 General rules.

(a) *Public hearings.* All hearings pursuant to this part shall be public unless otherwise ordered by the Presiding Officer. Notice of the time and location of the hearing shall be served on each party and participant, and published in the FEDERAL REGISTER.

(b) *Expedition.* Hearings shall proceed with all reasonable speed, and insofar as practicable and with due regard to the convenience of the parties and shall continue without suspension until concluded, except in unusual circumstances.

(c) *Rights of parties.* Every party shall have the right of timely notice and all other rights essential to a fair hearing, including, but not limited to, the rights to present evidence, to conduct such cross-examination as may be necessary in the judgment of the Presiding Officer for a full and complete disclosure of the facts, and to be heard by objection, motion, brief, and argument.

(d) *Rights of participants.* Every participant shall have the right to make a written or oral statement of position, file proposed findings of fact, conclusions of law and a posthearing brief, in accordance with § 511.17(b).

(e) *Rights of witnesses.* Any person compelled to testify in a proceeding in response to a subpoena may be accompanied, represented, and advised by counsel or other representative, and may obtain a transcript of his or her testimony at no cost.

§ 511.42 Powers and duties of Presiding Officer.

(a) *General.* A Presiding Officer shall have the duty to conduct full, fair, and impartial hearings, to take appropriate action to avoid unnecessary delay in the disposition of proceedings, and to maintain order. He or she shall have all powers necessary to that end, including the following powers:

(1) To administer oaths and affirmations;

(2) To compel discovery and to impose appropriate sanctions for failure to make discovery;

(3) To issue subpoenas;

(4) To rule upon offers of proof and receive relevant and probative evidence;

(5) To regulate the course of the hearings and the conduct of the parties and their representatives therein;

(6) To hold conferences for simplification of the issues, settlement of the proceedings, or any other proper purposes;

(7) To consider and rule, orally or in writing, upon all procedural and order motions appropriate in an adjudicative proceeding;

(8) To issue initial decisions, rulings, and orders, as appropriate;

(9) To certify questions to the Administrator for determination; and

(10) To take any action authorized in this part or in conformance with the provisions of title 5, U.S.C., sections 551 through 559.

(b) *Exclusion of parties by Presiding Officer.* A Presiding Officer shall have the authority, for good cause stated on the record, to exclude from participation in a proceeding any party, participant, and/or representative who shall

violate requirements of § 511.76. Any party, participant and/or representative so excluded may appeal to the Administrator in accordance with the provisions of § 511.23. If the representative of a party or participant is excluded, the hearing shall be suspended for a reasonable time so that the party or participant may obtain another representative.

(c) *Substitution of Presiding Officer.* In the event of the substitution of a new Presiding Officer for the one originally designated, any motion predicated upon such substitution shall be made within five (5) days of the substitution.

(d) *Interference.* In the performance of adjudicative functions, a Presiding Officer shall not be responsible to or subject to the supervision or direction of the Administrator or of any officer, employee, or agent engaged in the performance of investigative or prosecuting functions for NHTSA. All directions by the Administrator to a Presiding Officer concerning any adjudicative proceeding shall appear on and be made a part of the record.

(e) *Disqualification of Presiding Officer.* (1) When a Presiding Officer deems himself or herself disqualified to preside in a particular proceeding, he or she shall withdraw by notice on the record and shall notify the Director of the Office of Administrative Law Judges and the Executive Secretary of the withdrawal.

(2) Whenever, for any reason, any party shall deem the Presiding Officer to be disqualified to preside, or to continue to preside, in a particular proceeding, that party may file with the Executive Secretary a motion to disqualify and remove, supported by affidavit(s) setting forth the alleged grounds for disqualification. A copy of the motion and supporting affidavit(s) shall be served by the Executive Secretary on the Presiding Officer whose removal is sought. The Presiding Officer shall have ten (10) days from service to reply in writing. Such motion shall not stay the proceeding unless otherwise ordered by the Presiding Officer or the Administrator. If the Presiding Officer does not disqualify himself or herself, the Administrator will determine the validity of the grounds

alleged, either directly or on the report of another Presiding Officer appointed to conduct a hearing for that purpose, and shall in the event of disqualification take appropriate action, by assigning another Presiding Officer or requesting loan of another Administrative Law Judge through the Office of Personnel Management

§ 511.43 Evidence.

(a) *Applicability of Federal Rules of Evidence.* The Federal Rules of Evidence shall apply to proceedings held under this part only as a general guide. The Presiding Officer may admit any relevant and probative evidence.

(b) *Burden of proof.* (1) Compliant counsel shall have the burden of sustaining the allegations of any complaint.

(2) Any party who is the proponent of a legal and/or factual proposition shall have the burden of sustaining the proposition.

(c) *Presumptions.* A presumption imposes on the party against whom it is directed the burden of going forward with evidence to rebut or meet the presumption, but does not shift to such party the burden of proof in the sense of the risk of nonpersuasion, which remains throughout the hearing upon the party on whom it was originally cast.

(d) *Admissibility.* All relevant and reliable evidence is admissible, but may be excluded if its probative value is substantially outweighed by unfair prejudice or by considerations of undue delay, waste of time, immateriality, or needless presentation of cumulative evidence.

(e) *Official notice*—(1) *Definition.* Official notice means use by the Presiding Officer of extra-record facts and legal conclusions drawn from those facts. An officially noticed fact or legal conclusion must be one not subject to reasonable dispute in that it is either (i) generally known within the jurisdiction of the Presiding Officer or (ii) known by the Presiding Officer in areas of his or her expertise; or (iii) capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned.

(2) *Method of taking official notice.* The Presiding Officer may at any time take official notice upon motion of any party or upon its own initiative. The record shall reflect the facts and conclusions which have been officially noticed.

(3) *Opportunity to challenge.* Any party may upon application in writing rebut officially noticed facts and conclusions by supplementing the record. The Presiding Officer shall determine the permissible extent of this challenge; that is, whether to limit the party to presentation of written materials, whether to allow presentation of testimony, whether to allow cross-examination, or whether to allow oral argument. The Presiding Officer shall grant or deny the application on the record.

(f) *Objections and exceptions.* Objections to evidence shall be timely interposed, shall appear on the record, and shall contain the grounds upon which they are based. Rulings on all objections, and the bases therefore, shall appear on the record. Formal exception to an adverse ruling is not required to preserve the question for appeal.

(g) *Offer of proof.* When an objection to proffered testimony or documentary evidence is sustained, the sponsoring party may make a specific offer, either in writing or orally, of what the party expects to prove by the testimony or the document. When an offer of proof is made, any other party may make a specific offer, either in writing or orally, of what the party expects to present to rebut or contradict the offer of proof. Written offers of proof or of rebuttal, adequately marked for identification, shall accompany the record and be available for consideration by any reviewing authority.

§ 511.44 Expert witnesses.

(a) *Definition.* An expert witness is one who, by reason of education, training, experience, or profession, has peculiar knowledge concerning the matter of science or skill to which his or her testimony relates and from which he or she may draw inferences based upon hypothetically stated facts or

from facts involving scientific or technical knowledge.

(b) *Method of presenting testimony of expert witness.* Except as may be otherwise ordered by the Presiding Officer, a detailed written statement of the elements of the direct testimony of an expert witness shall be filed on the record and exchanged between the parties no later than 10 days preceding the commencement of the hearing. The statement must contain a full explanation of the methodology underlying any analysis, and a full disclosure of the basis of any opinion. The direct testimony of an expert witness shall not include points not contained in the written statement. A party may waive direct examination of an expert witness by indicating that the written statement be considered the testimony of the witness. In such a case, the written testimony shall be incorporated into the record and shall constitute the testimony of the witness.

(c) *Cross-examination and redirect examination of expert witness.* Cross-examination, redirect examination, and re-cross-examination of an expert witness will proceed in due course based upon the written testimony and any amplifying oral testimony.

(d) *Failure to file and/or to exchange written statement.* Failure to file and/or to exchange the written statement of an expert witness as provided in this section shall deprive the sponsoring party of the use of the expert witness and of the conclusions which that witness would have presented.

§ 511.45 In camera materials.

(a) *Definition.* In camera materials are documents, testimony, or other data which by order of the Presiding Officer or the Administrator, as appropriate under this Part, are kept confidential and excluded from the public record. Only materials exempt under the Freedom of Information Act may be kept confidential and excluded from the public record. Pursuant to 49 CFR Part 512, the Chief Counsel of the NHTSA is responsible for determining whether an alleged confidential business record is exempt from the Freedom of Information Act. The right of the Presiding Officer, the Ad-

ministrator and reviewing courts to order disclosure of in camera materials is specifically reserved.

(b) *In Camera Treatment of documents and testimony.* The Presiding Officer or the Administrator, as appropriate under this part, shall have authority, when good cause is found on the record, to order documents or testimony offered in evidence, whether admitted or rejected, to be received and preserved in camera. The order shall specify the length of time for in camera treatment and shall include:

(1) A description of the documents and/or testimony;

(2) The reasons for granting in camera treatment for the specified length of time.

(c) *Access and disclosure to parties.*

(1) The Administrator and Presiding Officer, and their immediate advisory staffs shall have complete access to all in camera materials. All other parties shall also have complete access to all in camera materials, except that these parties may seek access only in accordance with paragraph (c)(2) of this section when:

(i) The in camera materials consist of information obtained by the government from persons not parties to the proceeding; or

(ii) The in camera materials consist of information provided by one of the parties to the proceeding which is confidential as to the other parties to the proceeding.

(2) Any party desiring access to and/or disclosure of the in camera materials specified in paragraph (c)(1) (i) and (ii) of this section for the preparation and presentation of that party's case shall make a motion which sets forth the justification therefore. The Presiding Officer or the Administrator, as appropriate under this part, may grant such motion on the record for substantial good cause shown and shall enter a protective order prohibiting unnecessary disclosure and requiring other necessary safeguards. The Presiding Officer or the Administrator, as appropriate, may examine the in camera materials and excise portions thereof before disclosing the materials to the moving party.

(d) *Segregation of in camera materials.* In camera materials shall be segre-

gated from the public record and protected from public view.

(e) *Public release of in camera materials.* In Camera materials constitute a part of the confidential records of the NHTSA and shall not be released to the public until the expiration of in camera treatment.

(f) *Reference to in camera materials.* In the submission of proposed findings, conclusions, briefs, or other documents, all parties shall refrain from disclosing specific details of in camera materials. Such refraining shall not preclude general references to such materials. To the extent that parties consider it necessary to include specific details of in camera materials, the references shall be incorporated into separate proposed findings, briefs, or other documents marked "CONFIDENTIAL, CONTAINS IN CAMERA MATERIAL," which shall be placed in camera and become part of the in camera record. These documents shall be served only on parties accorded access to the in camera materials in accordance with paragraph (c)(2) of this section.

§ 511.46 Proposed findings, conclusions, and order.

Within a reasonable time after the closing of the record and receipt of the transcript, all parties and participants may, simultaneously, file post-hearing briefs, including proposed findings of fact, conclusions of law and a proposed order, together with reasons therefore. The Presiding Officer shall establish a date certain for the filing of the briefs, which shall not exceed 45 days after the close of the record except in unusual circumstances. The briefs shall be in writing, shall be served upon all parties, and shall contain adequate references to the record and authorities relied on. Replies shall be filed within fifteen (15) days of the date for the filing of briefs unless otherwise established by the Presiding Officer. The parties and participants may waive either or both submissions.

§ 511.47 Record.

(a) *Reporting and transcription.* Hearings shall be recorded and transcribed under the supervision of the Presiding Officer by a reporter ap-

pointed by the Administrator. The original transcript shall be a part of the record and the official transcript. Copies of transcripts are available from the reporter at a cost not to exceed the maximum rates fixed by contract between the NHTSA and the reporter.

(b) *Corrections.* Corrections of the official transcript may be made only when they involve errors affecting substance and then only in the manner herein provided. The Presiding Officer may order corrections, either on his or her own motion or on motion of any party. The Presiding Officer shall determine the corrections to be made and so order. Corrections shall be interlineated or otherwise inserted in the official transcript so as not to obliterate the original text.

§ 511.48 Official docket.

(a) The official docket in adjudicatory proceedings will be maintained in the Docket Section, Room 5109, 400 Seventh Street S.W., Washington, D.C. and will be available for public inspection during normal working hours (7:45 a.m.-4:15 p.m.) Monday through Friday.

(b) Fees for production or disclosure of records contained in the official docket shall be levied as prescribed in the NHTSA's Procedures for Disclosure or Production of Information under the Freedom of Information Act.

(Sec. 9, Pub. L. 89-670, 80 Stat. 981 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. 911 (15 U.S.C. 2008))

[45 FR 81578, Dec. 11, 1980, as amended at 48 FR 44081, Sept. 27, 1983]

§ 511.49 Fees.

(a) *Witnesses.* Any person compelled to appear in person in response to a subpoena or notice of oral examination shall be paid at least the same attendance and mileage fees as are paid witnesses in the courts of the United States, in accordance with title 28, U.S.C., section 1821.

(b) *Responsibility.* The fees and mileage referred to in this section shall be paid by the party at whose instance witnesses appear.

Subpart F—Decision**§ 511.51 Initial decision.**

(a) *When filed.* The Presiding Officer shall endeavor to file an Initial Decision with the Administrator within sixty (60) days of the close of the record, the filing of post-hearing briefs, or the filing of replies thereto, whichever is latest.

(b) *Content.* The Initial Decision shall be based upon a consideration of the entire record and it shall be supported by reliable, probative, and substantial evidence. It shall include:

(1) Findings and conclusions, as well as the reasons or bases therefore, upon the material questions of fact, material issues of law, or discretion presented on the record, and should, where practicable, be accompanied by specific page citations to the record and to legal and other materials relied upon.

(2) An appropriate order.

(c) *By whom made.* The Initial Decision shall be made and filed by the Presiding Officer who presided over the hearing, unless otherwise ordered by the Administrator.

(d) *Reopening of proceeding by presiding officer; termination of jurisdiction.* (1) At any time prior to or concomitant with the filing of the Initial Decision, the Presiding Officer may reopen the proceedings for the reception of further evidence.

(2) Except for the correction of clerical errors, the jurisdiction of the Presiding Officer is terminated upon the filing of the Initial Decision, unless and until the proceeding is remanded to the Presiding Officer by the Administrator.

§ 511.52 Adoption of initial decision.

The Initial Decision and Order shall become the Final Decision and Order of the Administrator forty (40) days after issuance unless an appeal is noted and perfected or unless review is ordered by the Administrator. Upon the expiration of the fortieth day, the Executive Secretary shall prepare, sign and enter an order adopting the Initial Decision and Order.

§ 511.53 Appeal from initial decision.

(a) *Who may file notice of intention.* Any party may appeal an Initial Decision to the Administrator provided that within ten (10) days after issuance of the Initial Decision such party files and serves a notice of intention to appeal.

(b) *Appeal brief.* The appeal shall be in the form of a brief, filed within forty (40) days after service of the Initial Decision, duly served upon all parties and participants. The appeal brief shall contain, in the order indicated, the following:

(1) A subject index of the matters in the brief, with page references, and a table of cases (alphabetically arranged), textbooks, statutes, and other material cited, with page references thereto;

(2) A concise statement of the case;

(3) A specification of the position urged;

(4) The argument, presenting clearly the points of fact and law relied upon in support of the position on each question, with specific page references to the record and the legal or other material relied upon; and

(5) A proposed form of order for the Administrator's consideration in lieu of the order contained in the Initial Decision.

(c) *Answering brief.* Within thirty (30) days after service of the appeal brief upon all parties and participants, any party may file an answering brief which shall also contain a subject index, with page references, and a table of cases (alphabetically arranged), textbooks, statutes, and other material cited, with page references thereto. Such brief shall present clearly the points of fact and law relied upon in support of the position taken on each question, with specific page references to the record and legal or other material relied upon.

(d) *Participant's brief.* Within thirty (30) days after service of the appeal brief upon all parties and participants, any participant may file an appeal brief which should contain a subject index, with page references, and a table of authorities being relied upon. Such brief shall present clearly the position taken by the participant on

each question raised by the appellant(s).

(e) *Cross appeal.* If a timely notice of appeal is filed by a party, any other party may file a notice of cross-appeal within ten (10) days of the date on which the first notice of appeal was filed. Cross-appeals shall be included in the answering brief and shall conform to the requirements for form, content and filing specified in paragraph (c) of this section. If an appeal is noticed but not perfected, no cross-appeal shall be permitted and the notice of cross-appeal shall be deemed void.

(f) *Reply brief.* A reply brief shall be limited to rebuttal of matters in answering briefs, including matters raised in cross-appeals. A reply brief shall be filed and within fourteen (14) days after service of an answering brief, or on the day preceding the oral argument, whichever comes first.

(g) *Oral argument.* The purpose of an oral argument is to emphasize and clarify the issues. Any party may request oral argument. The Administrator may order oral argument upon request or upon his or her own initiative. All oral arguments shall be reported and transcribed.

§ 511.54 Review of initial decision in absence of appeal.

The Administrator may, by order, review a case not otherwise appealed by a party. Thereupon the parties shall and participants may file briefs in accordance with § 511.53(b), (c), (d), (e), and (f) except that the Administrator may, in his or her discretion, establish a different briefing schedule in his or her order. Any such order shall issue within forty (40) days of issuance of the Initial Decision. The order shall set forth the issues which the Administrator will review.

§ 511.55 Final decision on appeal or review.

(a) Upon appeal from or review of an Initial Decision, the Administrator shall consider such parts of the record as are cited or as may be necessary to resolve the issues presented and, in addition, shall, to the extent necessary or desirable, exercise all the powers

which it could have exercised if he or she had made the Initial Decision.

(b) In rendering his or her decision, the Administrator shall adopt, modify, or set aside the findings, conclusions, and order contained in the Initial Decision, and shall include in his or her Final Decision a statement of the reasons or bases for his or her action. The Administrator shall issue an order reflecting his or her Final Decision.

§ 511.56 Reconsideration.

Within twenty (20) days after issuance of a Final Decision and Order, any party may file with the Administrator a petition for reconsideration of such decision or order, setting forth the relief desired and the grounds in support thereof. Any party desiring to oppose such a petition shall file an answer thereto within ten (10) days after service of the petition. The filing of a petition for reconsideration shall not stay the effective date of the Decision and Order or toll the running of any statutory time period affecting the decision or order unless specifically so ordered by the Administrator.

§ 511.57 Effective date of order.

(a) *Consent orders.* An order which has been issued following acceptance of an offer of settlement in accordance with § 511.26 becomes effective upon issuance.

(b) *Litigated orders.* All other orders become effective upon the expiration of the statutory period for court review specified in section 508(c)(1) of the Motor Vehicle Information and Cost Savings Act, title 15, U.S.C. section 2008(c)(1), Pub. L. 94-163, 89 Stat. 911, or, if a petition for review has been filed, upon court affirmation of the Administrator's order.

Subpart G—Settlement Procedure in Cases of Violation of Average Fuel Economy Standards

§ 511.61 Purpose.

This subpart establishes the procedures and requirements necessary to obtain a settlement of a case of violation of section 507 (1) or (2) of the Motor Vehicle Information and Cost Savings Act, as amended, Pub. L. 94-

163, 89 Stat. 911 (15 U.S.C. section 2007(1)(2)). No settlement of such cases may be had except as in accordance with this subpart.

§ 511.62 Definitions.

"Average fuel economy standard" means an average fuel economy standard established by or pursuant to the Motor Vehicle Information and Cost Savings Act.

"Insolvency" means the inability to meet expenses when due.

"Settlement" means a compromise, modification, or remission of a civil penalty assessed under this part for a violation of an average fuel economy standard.

§ 511.63 Criteria for settlement.

Settlement of a case of violation of an average fuel economy standard is discretionary with the Administrator. The Administrator will consider settlement only to the extent:

(a) Necessary to prevent the insolvency or bankruptcy of the person seeking settlement, or

(b) That the violation of the average fuel economy standard resulted, as shown by the person seeking settlement, from an act of God, a strike, or fire, or

(c) That modification of a civil penalty assessed under this part is necessary to prevent lessening of competition, as determined and as certified by the Federal Trade Commission under section 508(b)(4) of the Motor Vehicle Information and Cost Savings Act, Pub. L. 94-163, 89 Stat. 911 (15 U.S.C. section 2008(b)(4)).

§ 511.64 Petitions for settlement; timing, contents.

(a) A petition seeking settlement under this subpart must be filed within 30 days after the issuance of a final order assessing a civil penalty for a violation of an average fuel economy standard.

(b) (1) A petition for settlement should be sufficient to allow the Administrator to determine that at least one of the criteria set out in § 511.63 is satisfied, and that the public interest would be served by settlement.

(2) A petition asserting that settlement is necessary to prevent bankruptcy or insolvency must include:

(i) Copies of all pertinent financial records, auditors reports, and documents that show that the imposition of a civil penalty would cause insolvency, or would cause a company to do an act of bankruptcy, and

(ii) A payment schedule that would allow the petitioner to pay a civil penalty without resulting in insolvency or an act of bankruptcy.

(3) A petition asserting that the violation of the average fuel economy standard was caused by an act of God, fire, or strike must describe corrective and ameliorative steps taken to mitigate the effects of the act of God, fire, or strike.

(4) A petition based on a certification by the Federal Trade Commission that modification of the civil penalty assessed is necessary to prevent a substantial lessening of competition must include a certified copy of:

(i) The application to the Federal Trade Commission for a certification under section 508(b)(4) of the Motor Vehicle Information and Cost Savings Act, Pub. L. 94-163, 89 Stat. 911 (15 U.S.C. 2008(b)(4)), and materials supporting the application.

(ii) The administrative record of any Federal Trade Commission proceeding held in regard to the application, and

(iii) The certification by the Federal Trade Commission.

(c) It is the policy of the National Highway Traffic Safety Administration that unconditional settlements of violations of average fuel economy standards are not in the public interest, and absent special and extraordinary circumstances, will not be allowed. All petitions for settlement shall contain a section proposing conditions for settlement. Conditions for settlement can be specific acts designed to lead to the reduction of automotive fuel consumption, which the petitioner is not otherwise required to perform pursuant to any statute, regulation, or administrative or judicial order, such as sponsoring public education programs, advertising, accelerating commercial application of technology, accelerating technology development programs, or making public

the results of privately performed studies, surveys, or research activities.

§ 511.65 Public comment.

Notice and opportunity for comment are provided to the public in regard to settlements under this part. Subject to § 511.66, notice of receipt of a petition for settlement is published in the FEDERAL REGISTER, and a copy of such petitions and any supporting information is placed in a public docket. Any settlement agreed to by the Administrator shall be placed in the public docket for 30 days so that interested persons may comment thereon. No settlement is binding until the completion of that thirty day period.

§ 511.66 Confidential business information.

The Administrator shall have authority to segregate from the public docket and to protect from public view information in support of a petition for settlement which has been determined to be confidential business information. The provisions of 15 U.S.C. 2005(d) pertaining to discretionary release by the Administrator of and to limited disclosure of information determined to be confidential business information shall apply to this section.

§ 511.67 Settlement order.

If, in accordance with this subpart, the Administrator allows a settlement of a case of violation of an average fuel economy standard, an order of settlement shall be issued, setting out the terms of the settlement, and containing a brief discussion of the factors underlying the exercise of the Administrator's discretion in allowing the settlement, including a discussion of comments received under § 511.65. If the Administrator rejects a petition for settlement, the Executive Secretary shall give written notice of the rejection and the reasons for the rejection to the parties and the Presiding Officer.

Subpart H—Appearances; Standards of Conduct

§ 511.71 Who may make appearances.

A party or participant may appear in person, or by a duly authorized officer, partner, regular employee, or other agent of this party or participant, or by or with counsel or other duly qualified representative, in any proceeding under the part.

§ 511.72 Authority for representation.

Any individual acting in a representative capacity in any adjudicative proceeding may be required by the Presiding Officer or the Administrator to show his or her authority to act in such capacity. A regular employee of a party who appears on behalf of the party shall be required by the Presiding Officer or the Administrator to show his or her authority to so appear.

§ 511.73 Written appearances.

(a) Any person who appears in a proceeding shall file a written notice of appearance with the Executive Secretary or deliver a written notice of appearance to the reporter at the hearing, stating for whom the appearance is made and the name, address, and telephone number (including area code) of the person making the appearance and the date of the commencement of the appearance. The written appearance shall be made a part of the record.

(b) Any person who has previously appeared in a proceeding may withdraw his or her appearance by filing a written notice of withdrawal of appearance with the Executive Secretary. The notice of withdrawal of appearance shall state the name, address, and telephone number (including area code) of the person withdrawing the appearance, for whom the appearance was made, and the effective date of the withdrawal of the appearance, and such notice of withdrawal shall be filed within five (5) days of the effective date of the withdrawal of the appearance.

§ 511.74 Attorneys.

An attorney at law who is admitted to practice before the Federal courts or before the highest court of any State, the District of Columbia, or any territory or Commonwealth of the United States, may practice before the NHTSA. An attorney's own representation that he or she is in good standing before any of such courts shall be sufficient proof thereof, unless otherwise ordered by the Presiding Officer or the Administrator.

§ 511.75 Persons not attorneys.

(a) Any person who is not an attorney at law may be admitted to appear in an adjudicative proceeding if that person files proof to the satisfaction of the Presiding Officer that he or she possesses the necessary legal, technical, or other qualifications to render valuable service in the proceeding and is otherwise competent to advise and assist in the presentation of matters in the proceedings. An application by a person not an attorney at law for admission to appear in a proceeding shall be submitted in writing to the Executive Secretary, not later than thirty (30) days prior to the hearing in the proceedings. The application shall set forth in detail the applicant's qualifications to appear in the proceedings.

(b) No person who is not an attorney at law and whose application has not been approved shall be permitted to appear in the Administration's proceedings. However, this provision shall not apply to any person who appears before the NHTSA on his or her own behalf or on behalf of any corporation, partnership, or association of which the person is a partner, officer, or regular employee.

§ 511.76 Qualifications and standards of conduct.

(a) The NHTSA expects all persons appearing in proceedings before it to act with integrity, with respect, and in an ethical manner. Business transacted before and with the NHTSA shall be in good faith.

(b) To maintain orderly proceedings, the Presiding Officer or the Administrator, as appropriate under this part, may exclude parties, participants, and their representatives for refusal to

comply with directions, continued use of dilatory tactics, refusal to adhere to reasonable standards of orderly and ethical conduct, failure to act in good faith, or violation of the prohibition against certain *ex parte* communications. The Presiding Officer may, in addition to the above sanctions, deny access to additional *in camera* materials when a party or participant publicly releases such materials without authorization.

(c) An excluded party, participant, or representative thereof may petition the Administrator to entertain an interlocutory appeal in accordance with § 511.24. If, after such appeal, the representative of a party or participant, is excluded, the hearing shall, at the request of the party or participant, be suspended for a reasonable time so that the party or participant may obtain another representative.

§ 511.77 Restrictions as to former members and employees.

The postemployee restrictions applicable to former Administrators and NHTSA employees, as set forth in 18 U.S.C. 207, shall govern the activities of former Administrators and NHTSA employees in matters connected with their former duties and responsibilities.

§ 511.78 Prohibited communications.

(a) *Applicability.* This section is applicable during the period commencing with the date of issuance of a complaint and ending upon final NHTSA action in the matter.

(b) *Definitions.* (1) "Decision-maker" means those NHTSA personnel who render decisions in adjudicative proceedings under this part, or who advise officials who render such decisions, including:

- (i) The Administrator,
- (ii) The Administrative Law Judges;
- (2) "Ex parte communications"

means:

(i) Any written communication other than a request for a status report on the proceeding made to a decision-maker by any person other than a decisionmaker which is not served on all parties,

(d) Any oral communication other than a request for a status report on the proceeding made to a decisionmaker by any person other than a decisionmaker without advance notice to the parties to the proceeding and opportunity for them to be present.

(c) *Prohibited ex parte communications.* Any oral or written ex parte communication relative to the merits of a proceeding under this part is a prohibited ex parte communication, except as provided in paragraph (d) of this section.

(d) *Permissible ex parte communications.* The following communications shall not be prohibited under this section:

(1) Ex parte communications authorized by statute or by this part.

(2) Any staff communication concerning judicial review or judicial enforcement in any matter pending before or decided by the Administrator.

(e) *Procedures for handling prohibited ex parte communication.* (1) Prohibited written ex parte communication. To the extent possible, a prohibited written ex parte communication received by any NHTSA employee shall be forwarded to the Executive Secretary rather than to a decisionmaker. A prohibited written ex parte communication which reaches a decisionmaker shall be forwarded by the decisionmaker to the Executive Secretary. If the circumstances in which a prohibited ex parte written communication was made are not apparent from the communication itself, a statement describing those circumstances shall be forwarded with the communication.

(2) Prohibited oral ex parte communication.

(i) If a prohibited oral ex parte communication is made to a decisionmaker, he or she shall advise the person making the communication that the communication is prohibited and shall terminate the discussion.

(ii) In the event of a prohibited oral ex parte communication, the decisionmaker shall forward to the Executive Secretary a dated statement containing such of the following information as is known to him/her:

(A) The title and docket number of the proceeding;

(B) The name and address of the person making the communication and his/her relationship (if any) to the parties to the proceeding;

(C) The date and time of the communication, its duration, and the circumstances (telephone call, personal interview, etc.) under which it was made;

(D) A brief statement of the substance of the matters discussed;

(E) Whether the person making the communication persisted in doing so after being advised that the communication was prohibited.

(3) *Filing.* All communications and statements forwarded to the Executive Secretary under this section shall be placed in a public file which shall be associated with, but not made a part of, the record of the proceedings, to which the communication or statement pertains.

(4) *Service on parties.* The Executive Secretary shall serve a copy of each communication and statement forwarded under this section on all parties to the proceedings. However, if the parties are numerous, or if other circumstances satisfy the Executive Secretary that service of the communication or statement would be unduly burdensome, he or she may, in lieu of service, notify all parties in writing that the communication or statement has been made and filed and that it is available for inspection and copying.

(5) *Service on maker.* The Executive Secretary shall forward to the person who made the prohibited ex parte communication a copy of each communication and/or statement filed under this section.

(f) *Effect of ex parte communications.* No prohibited ex parte communication shall be considered as part of the record for decision unless introduced into evidence by a party to the proceedings.

(g) *Sanctions.* A party or participant who makes a prohibited ex parte communication, or who encourages or solicits another to make any such communication, may be subject to any appropriate sanction or sanctions, including but not limited to, exclusion from the proceedings and adverse rul-

ings on the issues which are the subject of the prohibited communication.

APPENDIX I—FINAL PREHEARING ORDER

Case Caption

Final Prehearing Order

A prehearing conference was held in this matter pursuant to Rule 21 of the Administration's Rules of Practice for Adjudicative Proceedings, on the _____ day of _____, 19____, at _____ o'clock—M.

Counsel appeared as follows:

For the Administration staff:

For the Respondent(s):

Others:

1. NATURE OF ACTION AND JURISDICTION.

This is an action for_____

and the jurisdiction of the Administration is involved under Section _____ of Title _____, U.S.C. The jurisdiction of the Administration is (not) disputed. The questions of jurisdiction was decided as follows:

2. STIPULATIONS AND STATEMENTS.

The following stipulations and statements were submitted, attached to, and made a part of this order:

(a) A comprehensive written stipulation or statement of all uncontested facts;

(b) A concise summary of the ultimate facts as claimed by each party. (Complaint Counsel must set forth the claimed facts, specifically; for example, if violation is claimed, Complaint Counsel must assert specifically the acts of violation complained of; each respondent must reply with equal clarity and detail.)

(c) Written stipulations or statements setting forth the qualifications of the expert witnesses to be called by each party;

(d) A written list or lists of the witnesses whom each party will call, a written list or lists of the additional witnesses whom each party may call, and a statement of the subject on which each witness will testify;

(e) An agreed statement of the contested issues of fact and of law, and/or separate statements by each party or any contested issues of fact and law not agreed to;

(f) A list of all depositions to be read into evidence and statements of any objections thereto;

(g) A list and brief description of any charts, graphs, models, schematic diagrams, and similar objects that will be used in opening statements or closing arguments, but will not be offered in evidence. If any

other such objects are to be used by any party, they will be submitted to opposing counsel at least three days prior to hearing. If there is then any objection to their use, the dispute will be submitted to the Presiding Officer at least one day prior to hearing;

(h) Written waivers of claims or defenses which have been abandoned by the parties.

The foregoing were modified at the pretrial conference as follows:

[To be completed at the conference itself. If none, recite "none"]

3. COMPLAINT COUNSEL'S EVIDENCE.

3.1 The following exhibits were offered by Complaint Counsel, received in evidence, and marked as follows:

[Identification number and brief description of each exhibit]

The authenticity of these exhibits has been stipulated.

3.2 The following exhibits were offered by the Complaint Counsel and marked for identification. There was reserved to the respondent(s) and party intervenors, if any, the right to object to their receipt in evidence on the grounds stated:

[Identification number and brief description of each exhibit. State briefly ground of objection, e.g., competency, relevancy, materiality]

4. RESPONDENT'S EVIDENCE.

4.1 The following exhibits were offered by the respondent(s), received in evidence, and marked as herein indicated:

[Identification number and brief description of each exhibit]

The authenticity of these exhibits has been stipulated.

4.2 The following exhibits were offered by the respondent(s) and marked for identification. There was reserved to Complaint Counsel and party intervenors, if any, the right to object to their receipt in evidence on the grounds stated:

[Identification number and brief description of each exhibit. State briefly ground of objection, e.g., competency, relevancy, materiality]

5. ADDITIONAL ACTIONS.

The following additional action was taken:

[Amendments to pleadings, agreements of the parties, disposition of motions, separation of issues of liability and remedy, etc., if necessary]

6. LIMITATIONS AND RESERVATIONS.

6.1 Each of the parties has the right to further supplement the list of witnesses not

later than ten (10) days prior to trial by furnishing opposing counsel with the name and address of the witness and general subject matter of his or her testimony and filing a supplement to this pretrial order. Thereafter additional witnesses may be added only after application to the Presiding Officer, for good cause shown.

6.2 Rebuttal witnesses not listed in the exhibits to this order may be called only if the necessity of their testimony could not reasonably be foreseen ten (10) days prior to trial. If it appears to counsel at any time before trial that such rebuttal witnesses will be called, notice will immediately be given to opposing counsel and the Presiding Officer.

6.3 The probable length of hearing is — days. The hearings will be commenced on the — day of —, 19—, at — o'clock — M. at (location) —.

6.4 Prehearing briefs will be filed not later than 5:00 p.m. on — (Insert date not later than ten (10) days prior to hearing.) All anticipated legal questions, including those relating to the admissibility of evidence, must be covered by prehearing briefs.

This prehearing order has been formulated after a conference at which counsel for the respective parties appeared. Reasonable opportunity has been afforded counsel for corrections or additions prior to signing. It will control the course of the hearing, and it may not be amended except by consent of the parties and the Presiding Officer, or by order of the Presiding Officer to prevent manifest injustice.

(Presiding Officer's Name)

(Presiding Officer's Title)

APPROVED AS TO FORM AND SUBSTANCE

Date: _____

Complaint Counsel.

Attorney for Respondent(s).

NOTE: Where intervenors appear pursuant to § 511.17 the prehearing order may be suitably modified; the initial page may be modified to reflect the intervention.

PART 512—CONFIDENTIAL BUSINESS INFORMATION

Sec.

512.1 Purpose and scope.

512.2 Applicability.

512.3 Definitions.

Sec.

512.4 Asserting a claim for confidential treatment of information.

512.5 Substantive standards for affording confidential treatment.

512.6 Determination of confidential treatment.

512.7 Modification of confidentiality determinations.

512.8 Discretionary release of confidential business information.

512.9 Class determinations.

512.10 Disclosure of information in certain circumstances.

APPENDIX A—AFFIDAVIT IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

APPENDIX B—CLASS DETERMINATIONS

APPENDIX C—OMB CLEARANCE

AUTHORITY: Sec. 9, Pub. L. 89-670, 80 Stat. 931 (49 U.S.C. 1657); sec. 112, Pub. L. 89-563, 80 Stat. 725, amended Pub. L. 91-265, 84 Stat. 262 (15 U.S.C. 1401); sec. 119, Pub. L. 89-563, 80 Stat. 728 (15 U.S.C. 1407); sec. 104, Pub. L. 92-513, 86 Stat. 950, (15 U.S.C. 1914); sec. 204, Pub. L. 92-513, 86 Stat. 957; (15 U.S.C. 1944); sec. 408, Pub. L. 92-513 as added Pub. L. 94-364, 90 Stat. 985 (15 U.S.C. 1990d); sec. 505, Pub. L. 94-163, 89 Stat. 908 (15 U.S.C. 2005), delegation of authority at 49 CFR 1.50.

SOURCE: 47 FR 24589, June 7, 1982, unless otherwise noted.

§ 512.1 Purpose and scope.

The purpose of this part is to establish the procedure by which the NHTSA will consider claims that information submitted to the NHTSA, or which the NHTSA otherwise obtains, is confidential business information, as described in 5 U.S.C. 552(b)(4).

§ 512.2 Applicability.

(a) This part applies, in accordance with its terms, to all information which is submitted to the NHTSA, or which the NHTSA otherwise obtains, except as provided in paragraph (b) of this section.

(b) Information received as part of the procurement process, is subject to the Federal Procurement Regulations, 41 CFR, Chapter 1, as well as this part. In any case of conflict between the Federal Procurement Regulations and this part, the provisions of the Federal Procurement Regulations prevail.

§ 512.3 Definitions.

"NHTSA" means the National Highway Traffic Safety Administration.

"Administrator" means the Administrator of the National Highway Traffic Safety Administration.

"Chief Counsel" means the Chief Counsel of the National Highway Traffic Safety Administration.

"Confidential business information" means information described in 5 U.S.C. 552(b)(4).

§ 512.4 Asserting a claim for confidential treatment of information.

(a) Any person submitting information to the NHTSA and requesting that it be withheld from public disclosure as confidential business information shall:

(1) Stamp or mark "confidential" or some other term which clearly indicates the presence of information claimed to be confidential, on the top of each page containing information claimed to be confidential.

(2) Mark each item of information which is claimed to be confidential and which appears on a page marked in accordance with paragraph (a)(1) of this section, with brackets "[]".

(3) If an entire page is claimed to be confidential, indicate clearly that the entire page is claimed to be confidential.

(4) Submit the documents containing allegedly confidential information directly to the Office of Chief Counsel, National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street SW., Washington, D.C.

(5) In the case of a document containing information which is claimed to be confidential submitted in connection with a NHTSA activity for which there is a public file or docket, simultaneously submit to the NHTSA a copy of the document from which information claimed to be confidential is deleted, for placement in the public file or docket pending the determination of the claim for confidential treatment.

(6) Simultaneously submit to the NHTSA in writing the name, address, and telephone number of a representative for receipt of notice under this part.

(b) When submitting each item of information marked confidential in accordance with paragraph (a) of this section, the submitter shall also submit either information supporting the claim for confidential treatment to the NHTSA or, if submission of that supporting information is not possible at that time, a request for an extension of time in which to submit the information and an explanation of the length of extension needed. The submission of such a request automatically extends the deadline. The Chief Counsel determines the length of the extension. The recipient of an extension shall submit the supporting information in accordance with the extension. The supporting information must show:

(1) That the information claimed to be confidential is a trade secret, or commercial or financial information.

(2) Measures taken by the submitter of the information to ensure that the information has not been disclosed or otherwise made available to any person, company, or organization other than the submitter of the information.

(3) Insofar as is known by the submitter of the information, the extent to which the information has been disclosed, or otherwise become available, to persons other than the submitter of the information, and why such disclosure or availability does not compromise the confidential nature of the information.

(4) Insofar as is known by the submitter of the information, the extent to which the information has appeared publicly, regardless of whether the submitter has authorized that appearance or confirmed the accuracy of the information (include citations to such public appearances, and an explanation of why such appearances do not compromise the confidential nature of the information).

(5) Prior determinations of the NHTSA or other Federal agencies or Federal courts relating to the confidentiality of the submitted information, or similar information possessed by the submitter including class determinations under this part (include any written notice or decision connected with any such prior determination, or

a citation to any such notice or decision, if published in the FEDERAL REGISTER).

(6) Except for information submitted to the agency in connection with the NHTSA's functions under Title V of the Motor Vehicle Information and Cost Savings Act, as amended, whether the submitter of the information asserts that disclosure would be likely to result in substantial competitive harm, what the harmful effects of disclosure would be, why the effects should be viewed as substantial, and the causal relationship between the effects and disclosure.

(7) For information submitted to the agency in connection with the NHTSA's functions under Title V of the Motor Vehicle Information and Cost Savings Act, whether the submitter of the information asserts that disclosure would result in significant competitive damage, what that damage would be, why that damage should be viewed as significant, and the causal relationship between the damage and disclosure.

(8) If information is voluntarily submitted, within the meaning of § 512.5(a)(2) of this part, why disclosure by the NHTSA would be likely to prevent the NHTSA from obtaining information in the future.

(9) The period of time for which confidentiality is claimed (permanently or until a certain date or the occurrence of a certain event) and why earlier disclosure would result in the harms set out in paragraph (b) (6), (7), or (8) of this section as the case may be.

(c)(1) If any element of the showing to support a claim for confidentiality required under paragraph (b) of this section is presumptively established by a class determination affecting the information for which confidentiality is claimed, the submitter of information need not establish that element again under paragraph (b) of this section.

(2) If the Chief Counsel believes that information which a submitter of information asserts to be within a class of information set out in Appendix B is not within that class, the Chief Counsel:

(i) Notifies the submitter of the information that the information does

not fall within the class as claimed, and briefly explains why the information does not fall within the class, and

(ii) Affords the submitter of the information a reasonable amount of time, not less than 10 working days, to comply fully with paragraph (b) of this section.

(d) Information in support of a claim for confidentiality submitted to the NHTSA under paragraph (b) of this section must consist of objective data to the maximum extent possible. To the extent that opinions are given in support of a claim for confidential treatment of information, the submitter of the information shall submit in writing to the NHTSA the basis for the opinions, and the name, title, and credentials showing the expertise of the person supplying the opinion.

(e) The submitter of information for which confidential treatment is requested shall submit to the NHTSA with the request a certification in the form set out in Appendix A from the submitter, or an agent of the submitter, that a diligent inquiry has been made to determine that the information has not been disclosed, or otherwise appeared publicly, except as indicated in accordance with paragraphs (b) (3) and (4) of this section.

(f) A single showing in support for a claim that information is confidential, in accordance with paragraph (b) of this section, may be used to support a claim for confidential treatment of more than one item of information claimed to be confidential. However, general or nonspecific assertions or analyses may be insufficient to form an adequate basis for the agency to find that information may be afforded confidential treatment, under § 512.3, and may result in the denial of a claim for confidentiality.

(g) Where confidentiality is claimed for information obtained by the submitter from a third party, such as a supplier, the submitter of the information is responsible for obtaining all information or certifications from the third party necessary to comply with paragraph (b) of this section.

(h) A submitter of information shall promptly amend supporting information provided under paragraph (b) of this section if the submitter obtains

information upon the basis of which the submitter knows that the supporting information was incorrect when provided, or that the supporting information, though correct when provided, is no longer correct and the circumstances are such that a failure to amend the supporting information is in substance a knowing concealment.

(i) Noncompliance with this section may result in a waiver or denial of a claim for confidential treatment of information. However, failure to provide the certification required in paragraph (e) of this section shall result in a denial of the claim. Noncompliance with paragraph (h) of this section may subject a submitter of information to civil penalties.

(1) If the provisions of paragraph (a) of this section are not complied with at the time the information is submitted to the NHTSA so that the NHTSA is not aware of a claim for confidentiality, or the scope of a claim for confidentiality, the claim for confidentiality is waived unless the agency is notified of the claim before the information is disclosed to the public. Placing the information in a public docket or file is disclosure to the public within the meaning of this part, and any claim for confidential treatment of information so disclosed is precluded.

(2) A request that information be afforded confidential treatment may be denied if the submitter of the information does not provide all of the supporting information required in paragraph (b) of this section, and will be denied if the information provided is insufficient to establish that the information may be afforded confidential treatment under the substantive tests set out in § 512.3. The Chief Counsel may notify a submitter of information of inadequacies in the supporting information, and may allow the submitter additional time to supplement the showing, but is under no obligation to provide either notice or additional time to supplement the showing.

(j) Information received that is identified as confidential and whose claim for confidentiality is supported in accordance with this section will be kept confidential until a determination of its confidentiality is made under § 512.6 of this part. Information will

not be publicly disclosed except in accordance with this part.

§ 512.5 Substantive standards for affording confidential treatment.

(a) Information obtained by the NHTSA, except for information obtained by the NHTSA under Title V of the Motor Vehicle Information and Cost Savings Act, may be afforded confidential treatment if it is a trade secret, commercial, or financial information that is not already publicly available; and

(1) Which if disclosed, would be likely to result in substantial competitive harm to the submitter of the information, or

(2) Voluntarily submitted, and failure to afford the information confidential treatment would impair the ability of the NHTSA to obtain similar information in the future. Information whose production the NHTSA could not compel by compulsory process is voluntarily submitted information within the meaning of this part.

(b) Information obtained by the NHTSA under Title V of the Motor Vehicle Information and Cost Savings Act may be afforded confidential treatment if it is a trade secret, commercial or financial information that is not already publicly available or and which, if disclosed, would result in significant competitive damage.

§ 512.6 Determination of confidential treatment.

(a) The decision of whether an item of information may be afforded confidential treatment under this part is made by the Office of Chief Counsel.

(b) The determination of confidentiality is made when disclosure of the information would be required if it were not entitled to confidentiality, pursuant to the Freedom of Information Act, or the statutes and regulations governing activities of the NHTSA or when the NHTSA finds that disclosure of such information, if not entitled to confidentiality, is in the best interest of the public, if—

(1) The information relates to a rule-making proceeding for which a public docket has been established,

(2) The information relates to a petition before the NHTSA for which a public docket has been established.

(3) The information relates to a proceeding under Part B of Subchapter I of the National Traffic and Motor Vehicle Safety Act.

(4) The information relates to an investigation or proceeding by the NHTSA to enforce any regulation or standard, or

(5) The information is received under a reporting requirement established by the NHTSA.

(c) If information does not come under paragraph (b) of this section when received by the NHTSA, but is later determined to be information described in paragraph (b) of this section, the determination of confidentiality is made when public disclosure would otherwise be necessary.

(d) For information not described under paragraph (b) of this section, the determination of confidentiality is made within ten working days after the NHTSA receives a request for that information under the Freedom of Information Act.

(e) The timing requirements prescribed in paragraph (d) of this section may be extended by the Chief Counsel for good cause shown on the Chief Counsel's own motion, or on request from any person, and is made only in accordance with 5 U.S.C. 552. Any extension of time is accompanied by a written statement setting out the reasons for the extension.

(f) A person submitting information to the NHTSA with a request that the information be withheld from public disclosure as confidential business information is given notice of the Chief Counsel's determination regarding the request as soon as the determination is made.

(1) If a request for confidentiality is granted, the submitter of the information is notified in writing that the information is being kept confidential and the length of time during which the information will be kept confidential.

(2) If a request for confidentiality is denied in whole or in part, the submitter of the information is notified in writing of that denial, and is informed that the information will be placed in

a public docket on a specified date, which is not less than ten working days after the submitter of the information has received notice of the denial of the request for confidential treatment if practicable, or some earlier date if the Chief Counsel determines that the public interest requires that the information be placed in a public file on such earlier date. The written notification of a denial specifies the reasons for denying the request.

(g) A submitter of information whose request for confidential treatment is denied may petition for reconsideration of that denial only on the basis of information or arguments that were not available at the time the original request for confidentiality was made. The Chief Counsel may postpone placing the information in a public file in order to allow additional time to consider the petition for reconsideration. Petitions for reconsideration under this section shall be addressed to the Chief Counsel.

(h) If information which has been a subject of a confidentiality determination under this section is requested under the Freedom of Information Act, the Office of Chief Counsel advises the office processing that request whether the information has been determined to be confidential.

§ 512.7 Modification of confidentiality determinations.

(a) A determination that information is confidential business information remains in effect in accordance with its terms, unless modified by a later determination based upon:

(1) Newly discovered or changed facts.

(2) A change in the applicable law.

(3) A class determination under § 512.9 of this part, or

(4) The initial determination's being clearly erroneous.

(b) If the NHTSA believes that an earlier determination of confidentiality should be reconsidered based on one or more of the factors listed in paragraphs (a)(1) through (4) of this section, the submitter of the information is notified in writing of the NHTSA's intention to reconsider that

earlier determination, and the reasons for that reconsideration, and is given an opportunity to comment which is not less than ten working days from the receipt of notice under this paragraph.

§ 512.8 Discretionary release of confidential business information.

(a) Information that has been determined or claimed to be confidential business information under § 512.6 of this part may be disclosed to the public by the Administrator notwithstanding such determination or claim if disclosure would be in the public interest as follows:

(1) Information obtained under Part A, Subchapter I of the National Traffic and Motor Vehicle Safety Act, relating to the establishment, amendment, or modification of Federal motor vehicle safety standards, may be disclosed when relevant to a proceeding under that part.

(2) Information obtained under Part B, Subchapter I of the National Traffic and Motor Vehicle Safety Act, relating to defects relating to motor vehicle safety, and failures to comply with applicable motor vehicle safety standards, may be disclosed if the Administrator determines that disclosure is necessary to carry out the purposes of that Act.

(3) Information obtained under Title I or V of the Motor Vehicle Information and Cost Savings Act may be disclosed when that information is relevant to a proceeding under the title under which the information was obtained.

(b) No information is disclosed under this section unless the submitter of the information is given written notice of the Administrator's intention to disclose information under this section. Written notice is given at least ten working days before the day of intended release, although the Administrator may provide shorter notice if the Administrator finds that such shorter notice is in the public interest. The notice under this paragraph includes a statement of the Administrator's reasons for considering the disclosure of information under this section, and affords the submitter of the information an opportunity to comment on the

contemplated release of information. The Administration may also give notice of the contemplated release of information to other persons, and may allow such other persons the opportunity to comment. When a release of information is made pursuant to this section, the Administrator will consider ways to make the release with the least possible adverse effects to the submitter.

§ 512.9 Class determinations.

(a) The Chief Counsel may issue a class determination relating to confidentiality under this section if the Chief Counsel determines that one or more characteristics common to each item of information in that class will in most cases necessarily result in identical treatment of each item of information under this part, and that it is appropriate to treat all such items as a class for one or more purposes under this part. The Chief Counsel obtains the concurrence of the Office of the General Counsel, United States Department of Transportation, for any class determination that has the effect of raising the presumption that all information in that class is eligible for confidential treatment. Class determinations are published in the FEDERAL REGISTER.

(b) A class determination clearly identifies the class of information to which it pertains.

(c) A class determination may state that all of the information in the class—

(1) Is or is not governed by a particular section of this part, or by a particular set of substantive criteria under this part,

(2) Fails to satisfy one or more of the applicable substantive criteria, and is therefore ineligible for confidential treatment,

(3) Satisfies one or more of the applicable substantive criteria, or

(4) Satisfies one of the substantive criteria during a certain period, but will be ineligible for confidential treatment thereafter.

(d) Class determinations will have the effect of establishing rebuttable presumptions, and do not conclusively

determine any of the factors set out in paragraph (c) of this section.

§ 512.10 Disclosure of information in certain circumstances.

(a) Notwithstanding any other provision of this part, information which has been determined to be confidential business information, or which has been claimed to be confidential business information, may be disclosed pursuant to a valid request—

- (1) To Congress,
- (2) Pursuant to court order,
- (3) To the Office of the Secretary, United States Department of Transportation and other Executive branch offices or other Federal agencies in accordance with applicable laws,
- (4) With the consent of the submitter of the information,
- (5) To contractors, if necessary for the performance of a contract with the Administration. In such instances, the contract limits further release of the information to named employees of the contractor with a need to know and provides that unauthorized release constitutes a breach of the contract for which the contractor may be liable to third parties.

APPENDIX A—AFFIDAVIT IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

I, ———, being duly sworn, depose and say:

(1) That I am (official) and that I am authorized by (company) to execute documents on behalf of (company):

(2) That the information contained in (pertinent document(s)) is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) (as incorporated by reference in and modified by § 505(d)(1) of Title 5 of the Motor Vehicle Information and Cost Savings Act.)

(3) That I have personally inquired of the responsible (company) personnel who have authority in the normal course of business to release the information for which a claim of confidentiality has been made to ascertain whether such information has ever been released outside (company).

(4) That based upon such inquiries to the best of my knowledge the information for which (company) has claimed confidential treatment has never been released or become available outside the (company) except as hereinafter specified:

(5) That I make no representations beyond those contained in this affidavit and

in particular I make no representations as to whether this information may become available outside (company) because of unauthorized or inadvertent disclosure except as stated in Paragraph 4; and

(6) That the information contained in the enumerated paragraphs of this affidavit is true and accurate to the best of my information, knowledge and belief.

(Official)

APPENDIX B—CLASS DETERMINATIONS

The Administration has determined that the following types of information would presumptively result in significant competitive damage or would be likely to result in substantial competitive harm if disclosed to the public—

(1) Blueprints and engineering drawings containing process of production data before the public availability, or within five years of the public availability, of the subject of the blueprints or engineering drawings, where the subject could not be manufactured without the blueprints or engineering drawings except after significant reverse engineering;

(2) Future model specific product plans, projected not more than three years into the future;

(3) Model specific projections of future sales mix, projected not more than three years into the future;

APPENDIX C—OMB CLEARANCE

The OMB clearance number for this regulation is 2127-0025.

PART 520—PROCEDURES FOR CONSIDERING ENVIRONMENTAL IMPACTS

Subpart A—General

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ATTACHMENT 1—FORM AND CONTENT OF STATEMENT

ATTACHMENT 2—AREAS OF ENVIRONMENTAL IMPACT AND FEDERAL AGENCIES AND FEDERAL-STATE AGENCIES WITH JURISDICTION BY LAW OR SPECIAL EXPERTISE TO COMMENT THEREON [NOTE]

ATTACHMENT 3—OFFICES WITHIN FEDERAL AGENCIES AND FEDERAL-STATE AGENCIES FOR INFORMATION REGARDING THE AGENCIES' IMPACT STATEMENTS FOR WHICH COMMENTS ARE REQUESTED [NOTE]

ATTACHMENT 4—STATE AND LOCAL AGENCY REVIEW OF IMPACT STATEMENTS

AUTHORITY: Secs. 102(2)(A), 102(2)(C), Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332); secs. 2(b), 4(f), Pub. L. 89-870, 80 Stat. 931 (49 U.S.C. 1651(b), 1653(f)); E.O. 11514, 35 FR 4247; 40 CFR Part 1500; DOT Order 5610.1B, 39 FR 35234; delegations of authority at 49 CFR 1.45, 1.51, unless otherwise noted.

SOURCE: 40 FR 52396, Nov. 10, 1975, unless otherwise noted.

Subpart A—General

§ 520.1 Purpose and scope.

(a) Section 102(2)(C) of the National Environmental Policy Act of 1969 (83 Stat. 853; 42 U.S.C. 4332(2)(C)), as implemented by Executive Order 11514 (3 CFR, 1966-1970 Comp., p. 902) and the Council on Environmental Quality's Guidelines of April 23, 1971 (36 FR 7724), requires that all agencies of the Federal Government prepare detailed environmental statements on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment. The purpose of the Act is to build into the agency decision-making process careful consideration of all en-

vironmental aspects of proposed actions.

(b) This part specifies National Highway Traffic Safety Administration (NHTSA) procedures for conducting environmental assessments and reviews, and for the preparation of environmental impact statements on proposals for legislation and other major agency actions significantly affecting the quality of the human environment.

§ 520.2 Policy.

The agency will strive to carry out the full intent and purpose of the National Environmental Policy Act of 1969 and related orders and statutes, and take positive steps to avoid any action which could adversely affect the quality of the human environment.

§ 520.3 Definitions.

(a) "Environmental assessment" is a written analysis describing the environmental impact of a proposed or ongoing agency action, submitted to the agency either by its grantees or contractors, or by any person outside the agency as part of any program or project proposal within the scope of activities listed in § 520.4(b).

(b) "Environmental review" is a formal evaluation undertaken by the agency, culminating in a brief document (the environmental review report), to determine whether a proposed or ongoing NHTSA action may have a significant impact on the environment. The review document will be included in the proposed or ongoing agency action, and either support a negative declaration or recommend the preparation of a draft environmental impact statement.

(c) "Draft environmental impact statement" (DEIS) means a preliminary statement on the environmental impact of a proposed or ongoing NHTSA action which is circulated for comment and review within and outside NHTSA.

(d) "Final environmental impact statement" (FEIS) means a detailed statement which, pursuant to section 102(2)(C) of the National Environmental Policy Act, identifies and analyzes

the anticipated environmental impact of a proposed or ongoing NHTSA action.

(e) "Negative declaration" means a statement prepared subsequent to an environmental review, which states that a proposed or ongoing NHTSA action will have no significant environmental impact and therefore does not require a draft or final environmental impact statement.

§ 520.4 Applicability.

(a) *Scope.* This part applies to all elements of NHTSA, including the Regional Offices.

(b) *Actions covered.* Except as provided in paragraph (e) of this section, this part applies to the following agency actions and such actions and proposals as may be sponsored jointly with another agency:

(1) New and continuing programs and projects; budget proposals; legislative proposals by the agency; requests for appropriations; reports on legislation initiated elsewhere where the agency has primary responsibility for the subject matter involved; and any renewals or reapprovals of the foregoing;

(2) Research, development, and demonstration projects; formal approvals of work plans; and associated contracts;

(3) Rulemaking and regulatory actions, including Notices of Proposed Rulemaking (NPRM); requests for procurement (RFP); requests for grants (Annual Work Programs); and contracts;

(4) All grants, loans or other financial assistance for use in State and Community projects;

(5) Annual State Highway Safety Work Programs;

(6) Construction; leases; purchases; operation of Federal facilities; and

(7) Any other activity, project, or action likely to have a significant effect on the environment.

(c) *Continuing actions.* This part applies to any action enumerated in paragraph (b) of this section, even though such actions arise from a project or program initiated prior to enactment of the National Environmental Policy Act on January 1, 1970.

(d) *Environmental assessments.* Within the scope of activities listed in § 520.4(b), any person outside the agency submitting a program or project proposal may be requested to prepare an environmental assessment of such proposed action to be included in his submission to the agency.

(e) *Exceptions.* (1) Assistance in the form of general revenue sharing funds, distributed under the State and Local Fiscal Assistance Act of 1972, 31 U.S.C. 1221, with no control by the NHTSA over the subsequent use of such funds;

(2) Personnel actions;

(3) Administrative procurements (e.g., general supplies) and contracts for personal services;

(4) Legislative proposals originating in another agency and relating to matters not within NHTSA's primary areas of responsibility;

(5) Project amendments (e.g., increases in costs) which have no environmental significance; and

(6) Minor agency actions that are determined by the official responsible for the actions to be of such limited scope that they clearly will not have a significant effect on the quality of the human environment.

(f) *Consolidation of statements.* Proposed actions (and alternatives thereto) having substantially similar environmental impacts may be covered by a single environmental review and environmental impact statement or negative declaration.

§ 520.5 Guidelines for identifying major actions significantly affecting the environment.

(a) *General guidelines.* The phrase, "major Federal actions significantly affecting the quality of the human environment," as used in this part, shall be construed with a view to the overall, cumulative impact of the actions, other Federal projects or actions in the area, and any further contemplated or anticipated actions. Therefore, an environmental impact statement should be prepared in any of the following situations:

(1) Proposed actions which are localized in their impact but which have a

potential for significantly affecting the environment;

(2) Any proposed action which is likely to be controversial on environmental grounds;

(3) Any proposed action which has unclear but potentially significant environmental consequences.

(b) *Specific guidelines.* While a precise definition of environmental significance that is valid in all contexts is not possible, any of the following actions should ordinarily be considered as significantly affecting the quality of the human environment:

(1) Any matter falling under section 4(f) of the Department of Transportation Act (49 U.S.C. 1653(f)) and section 138 of Federal-aid highway legislation (23 U.S.C. 138), requiring the use of any publicly owned land from a park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land from an historic site of national, State, or local significance;

(2) Any matter falling under section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470(f)), requiring consideration of the effect of the proposed action on any building included in the National Register of Historic Preservation and reasonable opportunity for the Advisory Council on Historic Preservation to comment on such action;

(3) Any action that is likely to affect the preservation and enhancement of sites of historical, architectural, or archaeological significance;

(4) Any action that is likely to be highly controversial regarding relocation housing;

(5) Any action that (i) divides or disrupts an established community, disrupts orderly, planned development, or is inconsistent with plans or goals that have been adopted by the community in which the project is located; or (ii) causes significantly increased congestion;

(6) Any action that (i) involves inconsistency with any Federal, State, or local law or administrative determination relating to the environment; (ii) has a significantly detrimental impact on air or water quality or on ambient

noise levels for adjoining areas; (iii) involves a possibility of contamination of a public water supply system; or (iv) affects ground water, flooding, erosion, or sedimentation;

(7) Any action that may directly or indirectly result in a significant increase in noise levels, either within a motor vehicle's closed environment or upon nearby areas;

(8) Any action that may directly or indirectly result in a significant increase in the energy or fuel necessary to operate a motor vehicle, including but not limited to the following: (i) Actions which may directly or indirectly result in a significant increase in the weight of a motor vehicle; and (ii) actions which may directly or indirectly result in a significant adverse effect upon the aerodynamic drag of a motor vehicle;

(9) Any action that may directly or indirectly result in a significant increase in the amount of harmful emissions resulting from the operation of a motor vehicle;

(10) Any action that may directly or indirectly result in a significant increase in either the use of or the exposure to toxic or hazardous materials in the manufacture, operation, or disposal of motor vehicles or motor vehicle equipment;

(11) Any action that may directly or indirectly result in a significant increase in the problem of solid waste, as in the disposal of motor vehicles or motor vehicle equipment;

(12) Any action that may directly or indirectly result in a significant depletion of scarce natural resources associated with the manufacture or operation of motor vehicles or motor vehicle equipment; and

(13) Any other action that causes significant environment impact by directly or indirectly affecting human beings through adverse impacts on the environment.

(c) *Research activities.* (1) In accordance with DOT Order 5610.1B, the Assistant Secretary for Systems Development and Technology (TST) will prepare, with the concurrence of the NHTSA, proposed procedures for assessing the environmental consequences of research activities. Until final procedures are promulgated, the

following factors are to be considered for periodic evaluation to determine when an environmental statement is required for such programs:

(i) The magnitude of Federal investment in the program;

(ii) The likelihood of widespread application of the technology;

(iii) The degree of environmental impact which would occur if the technology were widely applied; and

(iv) The extent to which continued investment in the new technology is likely to restrict future alternatives.

(2) The statement or environmental review culminating in a negative declaration must be written late enough in the development process to contain meaningful information, but early enough so that this information can practically serve as an input in the decision-making process. Where it is anticipated that an environmental impact statement may ultimately be required but its preparation is still premature, the office shall prepare a publicly available record briefly setting forth the reasons for its determination that a statement is not yet necessary. This record shall be updated at least quarterly, or as may be necessary when significant new information becomes available concerning the potential environmental impact of the program. In any case, a statement or environmental review culminating in a negative declaration must be prepared before research activities have reached a state of investment or commitment to implementation likely to determine subsequent development or restrict later alternatives. Statements on technology research and development programs shall include an analysis not only of alternative forms of the same technology that might reduce any adverse environmental impacts but also of alternative technologies that would serve the same function as the technology under consideration. Efforts shall be made to involve other Federal agencies and interested groups with relevant expertise in the preparation of such statements because the impacts and alternatives to be considered are likely to be less well defined than in other types of statements.

Subpart B—Procedures

§ 520.21 Preparation of environmental reviews, negative declarations, and notices of intent.

(a) *General responsibilities*—(1) *Associate Administrators and Chief Counsel*. Each Associate Administrator and the Chief Counsel is responsible for determining, in accordance with Subpart A, whether the projects and activities under his jurisdiction require an environmental review, and for preparing all such reviews, negative declarations, and notices of intent.

(2) *Regional Administrators*. Each Regional Administrator, in consultation with the Governor's Representative, is responsible for determining, in accordance with Subpart A, whether proposed State activities in his Region, as stated in Annual Work Programs, require an environmental review, and for the preparing all such reviews, negative declarations, and notices of intent.

(3) *Associate Administrator for Planning and Evaluation*. The Associate Administrator for Planning and Evaluation may request in accordance with the requirements of this order, that the appropriate Associate Administrator or Regional Administrator prepare an Environmental review or Environmental Impact Statement for any proposed or continuing NHTSA action, or comment on any environmental statement prepared by other agencies.

(b) *Coordination*. Coordination with appropriate local, State and Federal agencies should be accomplished during the early stages by the responsible official to assist in identifying areas of significance and concern. Existing procedures, including those established under the Office of Management and Budget (OMB) Revised Circular A-95, should be used to the greatest extent practicable to accomplish this early coordination.

(c) *Applicants*. (1) Each applicant for a grant, loan, or other financial assistance for use in State and community projects may be requested to submit, with the original application, an environmental assessment of the proposed project.

(2) Under OMB Revised Circular A-95, "Evaluation, Review, and Coordination of Federal Assistance Programs and Projects," and DOT 4600.4B, "Evaluation, Review and Coordination of DOT Assistance Programs and Projects," dated February 27, 1974, a grant applicant must notify the clearinghouse of its intention to apply for Federal program assistance. The notification must solicit comments on the project and its impacts from appropriate State and local agencies. Since it is the NHTSA's policy to assure that (i) interested parties and Federal, State, and local agencies receive early notification of the decision to prepare an environmental impact statement, and (ii) their comments on the environmental effects of the proposed Federal action are solicited at an early stage in the preparation of the draft impact statement, this early notification requirement may be met by a grant applicant by sending the notification to interested parties and agencies at the same time it is sent to the clearinghouse.

(d) *Consultants.* Consultants may prepare background or preliminary material and assist in preparing a draft or final environmental statement for which the NHTSA takes responsibility. Care should be exercised in selecting consultants, and in reviewing their work, to insure complete and objective consideration of all relevant project impacts and alternatives, particularly if the consultant may expect further contracts based on the outcome of the environmental decision.

(e) *Environmental review report.* The environmental review shall culminate in a brief written report of the same title, which shall be included in the proposed or ongoing agency action, and which:

(1) Describes the proposed or ongoing NHTSA action, the environment affected, and the anticipated benefits;

(2) Evaluates the potential environmental impact, including those adverse impacts which cannot be avoided, should the proposal be implemented or the action continued;

(3) Assesses the alternatives to the proposed or ongoing action and their potential environmental impact;

(4) Evaluates the cumulative and long-term environmental effects of the proposed or ongoing action;

(5) Describes the irreversible and irretrievable commitments of resources involved in the proposal's implementation or the action's continuance;

(6) Identifies any known or potential conflicts with State, regional, or local plans and programs;

(7) Weighs and analyzes the anticipated benefits against the environmental and other costs of the proposed or ongoing action in a manner which reflects similar comparisons of reasonably available alternatives; and

(8) Concludes with a negative declaration or recommends the preparation of a DEIS.

(f) *Negative declarations.* (1) If the responsible official judges that the environmental impact of a proposed or ongoing action under his jurisdiction will not significantly affect the quality of the human environment, the following declaration will be included in the environmental review report:

It is the judgment of this agency, based on available information, that no significant environmental impact will result from execution of this action.

(2) A DEIS may be changed to a negative declaration if the public review process indicates that the proposal or ongoing action will not have a significant effect upon the environment.

(3) An index of all negative declarations and a copy of each environmental review report shall be retained by the responsible official under whose jurisdiction it was prepared and shall be made available for public inspection upon request.

(g) *Notice of intent to prepare a draft environmental impact statement.* If the responsible official under whose jurisdiction an environmental review is prepared determines that the proposed or ongoing action could have a potentially significant effect on the quality of the environment, he shall coordinate with the Associate Administrator for Planning and Evaluation and the Chief Counsel, transmit to appropriate Federal, State and local agencies and have published in the FEDERAL REGISTER a notice of intent to prepare an environmental statement

as soon as is practicable after the determination to prepare such a statement.

§ 520.22 Maintenance of a list of actions.

(a) The Associate Administrator for Planning and Evaluation shall be responsible for the preparation and maintenance of a list of actions for which draft or final environmental impact statements have been or are to be prepared. This list shall be on file with the Associate Administrator for Planning and Evaluation and shall be available for public inspection in the Docket Section upon request. A copy of the initial list and its updatings at the end of each calendar quarter shall be transmitted by the Associate Administrator for Planning and Evaluation to TES and CEQ.

(b) If a determination is made that an environmental statement is not necessary for a proposed action (1) which has been identified as normally requiring preparation of a statement, (2) which is similar to actions for which a significant number of statements have been prepared, (3) which the agency has previously announced would be the subject of a statement, or (4) for which the official responsible for such proposal has made a negative determination in response to a request from the CEQ, a record briefly setting forth the decision and the reasons for that determination shall be prepared by the responsible official. Such a record of negative determinations and any evaluations made pursuant to § 520.21 which conclude that preparation of a statement is not yet timely shall be prepared by the responsible official, submitted to the Associate Administrator for Planning and Evaluation, and made available by the Associate Administrator for Planning and Evaluation in the same manner as provided in paragraph (a) of this section for lists of statements under preparation.

§ 520.23 Preparation of draft environmental impact statements.

(a) *Planning stage.* (1) When a DEIS is to be prepared, the responsible official shall promptly initiate its preparation and develop a schedule in consultation with the Associate Administra-

tor for Planning and Evaluation, to assure completion prior to the first significant point of decision in the program or project development process.

(2) The environmental impacts of proposed activities should be initially assessed concurrently with the initial technical and economic studies.

(3) Section 102(2)(A) of NEPA requires each Federal agency to utilize a "systematic, interdisciplinary approach" to plans and programs affecting the environment. To assure that all environmental impacts are identified and assessed, all relevant disciplines should be represented. If the necessary disciplines are not represented on the staff of the applicant or NHTSA, it is appropriate to use professional services available in other Federal, State or local agencies, universities, or consulting firms. The use of the interdisciplinary approach should not be limited to the environmental statement. This approach should also be used in the early planning stages to help assure a systematic evaluation of reasonable alternative courses of action and their potential social, economic, and environmental consequences.

(b) *Form and content requirements.* Attachment 1 of this order prescribes the form and content requirements to be followed for each draft and final environmental impact statement. The DEIS must fulfill and satisfy, to the fullest extent possible at the time it is prepared, the requirements established for final statements.

(c) *"Lead agency".* CEQ guidelines provide that when more than one Federal agency (1) directly sponsors an action, or is directly involved in an action through funding, licenses, or permits, or (2) is involved in a group of actions directly related to each other because of their functional interdependence and geographical proximity, consideration should be given to preparing one statement for all the Federal actions involved. Agencies in such cases should consider the designation of a single "lead agency" to assume supervisory responsibility for preparation of a joint statement. Where a lead agency prepares the statement, the other agencies involved should provide assistance with respect to their areas

of jurisdiction and expertise. The statement should contain an evaluation of the full range of Federal actions involved, should reflect the views of all participating agencies, and should be prepared before major or irreversible actions have been taken by any of the participating agencies. Some relevant factors in determining an appropriate lead agency are: The time sequence in which the agencies become involved, the magnitude of their respective involvement, and their relative expertise with respect to the project's environmental effects. Questions concerning "lead agency" decisions should be raised with CEQ through TES. For projects serving and primarily involving land owned by or under the jurisdiction of another Federal agency, that agency may be the appropriate lead agency.

(d) *Applicants.* Where the agency requests an applicant for financial assistance or other agency approval to submit an environmental assessment, the responsible official will (1) assist the applicant by outlining the information required, and (2) in all cases make his own evaluation of the environmental issues involved and take responsibility for the scope and content of draft and final environmental statements.

§ 520.24 Internal processing of draft environmental impact statements.

Before circulating a DEIS for external review, the official responsible for the DEIS shall receive the concurrence of the Associate Administrator for Planning and Evaluation and the Chief Counsel; and prepare a memorandum for approval by the Administrator which shall:

(a) Set forth the basis on which it was determined that a potentially significant environmental effect exists;

(b) Attach the DEIS;

(c) Identify the Federal, State, and local agencies and private sources from which comments on the DEIS are proposed to be solicited (see Attachment 2);¹ and

(d) Include a recommendation on whether a public hearing on the proposed action should be held.

§ 520.25 External review of draft environmental impact statements.

(a) *Requirements.* The official responsible for the DEIS shall:

(1) Transmit 5 copies of the DEIS to the CEQ and 2 copies to TES;

(2) Solicit comments from all Federal, State, and local agencies which have jurisdiction by law or special expertise with respect to the possible environmental impact involved, and from the public (see Attachment 2); and

(3) Inform the public and interested parties of the availability of the DEIS and provide copies as appropriate; and

(4) Allow a comment period of not less than 45 days from the Friday of the week following receipt of the draft impact statement by CEQ. Requests for extensions shall be granted whenever possible, and particularly when warranted by the magnitude and complexity of the statement or the extent of citizen interest.

(b) *Procedures—(1) Federal and Federal-State agency review.* (i) The DEIS shall be circulated for review to the Federal and Federal-State agencies with special expertise or jurisdiction by law with regard to the potential environmental impact involved. These agencies and their relevant areas of expertise are identified in Attachment 2.

(ii) For actions within the jurisdiction of the Environmental Protection Agency (air or water quality, solid wastes, pesticides, radiation standards, noise), the DEIS shall be sent to EPA.

(iii) For actions which would affect any property that is included in the National Register of Historic Preservation, the DEIS should be sent to the Advisory Council on Historic Preservation and the State Liaison Office for Historic Preservation.

(2) *State and local review.* Where a review of the proposed action by State and local agencies authorized to develop and enforce environmental standards is relevant, comments are to be solicited directly from such agencies with known responsibilities in environ-

¹Filed as part of the original document.

mental matters, and shall be obtained as follows:

(i) Where review of direct Federal development projects, and of projects assisted under programs listed in Attachment D to revised OMB Circular A-95 (as implemented by DOT 4600.4B "Evaluation, Review and Coordination of DOT Assistance Programs and Projects", dated February 27, 1974), takes place prior to preparation of an environmental statement, comments of the reviewing agencies on the environmental effects of the proposed project are inputs to the environmental statement. These comments shall be attached to the draft statement when it is circulated for review and copies of the draft shall be sent to those who commented. A-05 clearinghouses or other agencies designated by the Governor may also secure comments on environmental statements. In all cases, copies of the draft environmental statements shall be sent to clearinghouses and to the applicant whose project is the subject of the statement.

(ii) Comments shall be directly obtained from appropriate State and local agencies, except where review is secured by agreement through A-95 clearinghouses, unless the Governor of the appropriate State has designated some other point for obtaining his review. Instructions for obtaining the views of such agencies are contained in the joint OMB-CEQ memorandum (see Attachment 4). Comments shall be solicited from municipalities and counties on all projects located therein.

(iii) State and local review of NHTSA procedures, regulations, and policies for administering Federal programs of assistance to State and local governments shall be obtained pursuant to procedures established by OMB Circular No. A-85.

(iv) Generally, environmental statements on legislative and budget proposals may be excluded from State and local review.

(3) *General public review.* (i) At the time the DEIS is circulated to Federal, State, and local agencies, public availability of the DEIS for comment and review will be announced by the CEQ in the **FEDERAL REGISTER**. Copies of the

DEIS should be sent to known interested parties, and press releases should be sent to local news media advising where the DEIS is available and how copies may be obtained. The Office of Public Affairs and Consumer Services shall maintain a list of groups, including conservation organizations and motor vehicle manufacturers, known to be interested in the agency's activities, and directly notify such groups of the availability of the DEIS or send them a copy as soon as it has been prepared.

(ii) A DEIS should be available to the public at least 30 days prior to the time of a public hearing on the DEIS.

(iii) Copies of the DEIS will be made available at the NHTSA Docket Section, Room 5109, 400 Seventh Street, SW., Washington, D.C. 20590, and, where appropriate, NHTSA Regional Offices, at the offices of any applicants or grantees, at appropriate State, regional, and metropolitan clearing houses, and local public libraries, and furnished to public and private organizations and individuals with special expertise with respect to the potential environmental impact involved, and to those with an interest in the action who request an opportunity to comment. Copies to be made available to the public shall be provided without charge to the extent practicable, or at a fee which is not more than the actual cost of reproducing copies required to be sent to other Federal agencies, including the CEQ.

(iv) A copy of the DEIS should in all cases be sent to any applicant whose project is the subject of the statement.

(v) If a DEIS is changed to a negative declaration as a result of the public review process, all agencies and individuals that received copies and/or commented on the DEIS must be informed that a negative declaration was substituted for the DEIS and given a brief explanation of the reason for such substitution.

(c) *Utilization of comments.* Comments received on the draft statement, and inputs (in summary form, if appropriate) from the processes for citizen participation, shall accompany the environmental statement through the normal internal project or program review process.

§ 520.26 Public hearings.

(a) A public hearing on a proposed or ongoing action covered by a DEIS shall be held upon the determination by the official responsible for such action, in consultation with the Associate Administrator for Planning and Evaluation, that a public hearing would be appropriate and in the public interest. In deciding whether a public hearing is appropriate, the responsible official should consider:

(1) The magnitude of the proposal in terms of economic costs, the geographic area involved, and the uniqueness or size of the commitment of the resources involved;

(2) The degree of interest in the proposal, as evidenced by requests from the public and from Federal, State, and local authorities that a hearing be held;

(3) The likelihood that information will be presented at the hearing which will be of assistance to the agency in fulfilling its responsibilities under the NEPA;

(4) The extent to which public involvement already has been achieved through other means, such as earlier public hearings, meetings with citizen representatives, and/or written comments on the proposed action; and

(5) The extent of potential environmental impact.

(b) If it is determined that a public hearing is to be held in accordance with paragraph (a) of this section, the official responsible for the action shall both announce the hearing through newspaper articles, direct notification to interested parties, and clearing-houses, and cause a notice to be issued in the *FEDERAL REGISTER* at least 30 days prior to the time of such hearing:

(1) Identifying the subject matter of the hearing;

(2) Announcing the date, time, and place of the hearing and the procedures to be followed; and

(3) Announcing the availability of the DEIS and any other information, as appropriate, for public inspection at one or more locations in the area affected by the action.

§ 520.27 Legislative actions.

(a) A DEIS on both legislative proposals and reports for which NHTSA

either develops the Departmental position or originates the legislation will be cleared with TES, filed with CEQ, and submitted to the Office of Management and Budget through the normal DOT and NHTSA legislative process.

(b) The preparation, circulation, and filing of the environmental statement shall be in accordance with OMB Bulletin 72-6, "Proposed Federal Actions Affecting the Environment."

(c) A DEIS and any comments that have been received should be available to the Congress and to the public for consideration in connection with the proposed legislation or report on proposed legislation. In cases where the scheduling of Congressional hearings on recommendations or reports on proposals for legislation which the Department has forwarded to the Congress does not allow adequate time for the completion of a FEIS, a DEIS may be furnished to the Congress and made available to the public pending transmittal of the comments as received and the final text.

§ 520.28 Preparation of final environmental impact statements.

(a) If the action is to go forward and the DEIS has not been changed to a negative declaration, as soon as practicable after the expiration of the comment period and hearing process, if any, the official responsible for the action shall prepare a final environmental impact statement (FEIS), taking into account all comments received and issues raised during such period and process.

(b) The FEIS shall conform to the guidelines for form and content in Attachment 1.

(c) The FEIS shall then be submitted to the Chief Counsel by the official responsible for the action, for determination of legal sufficiency.

§ 520.29 Internal review of final environmental impact statements.

(a) Upon completion of the review for legal sufficiency of the FEIS, the Chief Counsel shall transmit 2 copies of the FEIS to TES for concurrence. Unless other notification is provided within 2 weeks after receipt in TES,

the statement will be considered concurred in by TES.

(b) After concurrence by TES, the FEIS will be transmitted by the Chief Counsel to the Administrator for approval.

(c) If an action requires the personal approval of the Secretary or Deputy Secretary pursuant to a request by them or by TES, TGC, or the NHTSA office originating the action, the final environmental statement shall be accompanied by a brief cover memorandum requesting the Secretary's or Deputy Secretary's approval of the action.

(1) The memorandum shall have signature lines for the concurrence of the Assistant Secretary for Environment, Safety, and Consumer Affairs, the General Counsel, and the Deputy Secretary, and for the approval of the Secretary or Deputy Secretary.

(2) TES, in conjunction with the Executive Secretary, is responsible for informing the Assistant Secretary for Congressional and Intergovernmental Affairs and the Office of Public Affairs of the Secretary's decisions so that they, in coordination with the operating administrations or other Secretarial Offices involved, may take the appropriate actions.

§ 520.30 Availability of final environmental impact statements.

(a) Pending final approval and filing with CEQ, a proposed FEIS may be made available to the public and Federal, State, or local agencies if it carries a notation that it is not approved and filed.

(b) After approval by the Administrator, the Associate Administrator for Planning and Evaluation will send 5 copies of the FEIS (together with comments) to the CEQ; individual copies with comments attached to the EPA and all Federal, State, and local agencies and members of the public who submitted comments on the DEIS or requested copies of the FEIS. If the length of the statement or the number of comments make this distribution requirement highly impractical, TES should be consulted to consider an alternative arrangement.

(c) Copies of the FEIS will be made available in the NHTSA Docket Sec-

tion, Room 5109, 400 Seventh Street SW., Washington, D.C. 20590, and, where appropriate, NHTSA Regional Offices, at the offices of any applicants or grantees, and at appropriate State, regional, and metropolitan clearinghouses and, where the impact is localized, public libraries.

(d) The official responsible for the action shall, upon request, make available copies of the FEIS and substantive comments received on the DEIS without charge to the extent practicable, or at a fee which is not more than the actual cost of reproducing copies.

(Secs. 102(a)(A), 102(2)(C), Pub. L. 91-190, 83 Stat. 353 (42 U.S.C. 4332); secs. 2(b), 4(f), Pub. L. 89-670, 80 Stat. 931 (49 U.S.C. 1651(b), 1653(f); E. O. 11514, 35 FR 4247; 40 CFR Part 1500; DOT Order 5610.1B, 39 FR 35234; delegations of authority at 49 CFR 1.45, 1.50 and 501.7)

[40 FR 52356, Nov. 10, 1975, as amended at 48 FR 44081, Sept. 27, 1983]

§ 520.31 Amendments or supplements.

A draft or final environmental impact statement may be amended or supplemented. Supplements or amendments should be considered when substantial changes are made in the proposed or ongoing action that will introduce a new or changed environmental effect of significance to the quality of the environment, or significant new information becomes available concerning its environmental aspects. In such cases, the supplement or amendment shall be processed in consultation with TES with respect to the need for, or desirability of, recirculating the statement for the appropriate period. TES concurrence must be secured before issuance.

§ 520.32 Emergency action procedures.

The CEQ Guidelines allow modification of requirements in case of a national emergency, a disaster or similar great urgency. The processing times may be reduced, or if the emergency situation warrants, preparation and processing of a DEIS, FEIS, or negative declaration may be abbreviated. Such procedural changes, however, should be requested only for those projects where the need for immediate action requires processing in other than the normal manner.

§ 520.33 Timing of proposed NHTSA actions.

To the maximum extent practicable, no administrative action (i.e., any proposed action to be taken by the agency other than agency proposals for legislation to Congress, budget proposals, or agency reports on legislation) subject to this part and covered by an environmental impact statement shall be taken sooner than 90 days after a DEIS has been circulated for comment, furnished to the CEQ, and made public. Neither shall such administrative action be taken sooner than 30 days after the FEIS (together with comments) has been filed with CEQ, and made available to commenting agencies and the public. If the FEIS is filed within 90 days after a DEIS has been circulated for comment, furnished to the CEQ and made public, the 30-day period and 90-day period may run concurrently to the extent that they overlap. The 90-day time period is measured from the date of publication in the FEDERAL REGISTER of the list of weekly filings of environmental impact statements with the CEQ, but the 30-day period is computed from the date of receipt by the CEQ.

§ 520.34 Comments on environmental statements prepared by other agencies.

(a) All requests for NHTSA's views on a DEIS or a proposed action undergoing environmental review by another agency will be transmitted to the Associate Administrator for Planning and Evaluation for action or referral to TES where appropriate. Offices within NHTSA may be requested by the Associate Administrator for Planning and Evaluation to supply any pertinent information and comments for a coordinated agency response.

(b) NHTSA's comments and the comments of any offices responding to a request by the Associate Administrator for Planning and Evaluation should be organized in a manner consistent with the structure of an environmental review set out in § 520.21(e). NHTSA programs that are environmentally related to the proposed action under review should be

identified so interrelationships may receive due consideration.

(c) Copies of NHTSA's comments on environmental statements prepared by other agencies shall be distributed as follows:

(1) The original and 1 copy to the requesting agency;

(2) 1 copy to TES-70; and

(3) 5 copies to CEQ.

(d) Requests by the public for copies should be referred to the agency originating the statement.

ATTACHMENT 1—FORM AND CONTENT OF STATEMENT

1. Form. a. Each statement will be headed as follows:

DEPARTMENT OF TRANSPORTATION NATIONAL
HIGHWAY TRAFFIC SAFETY ADMINISTRATION

(Draft) Environmental Impact Statement
Pursuant to section 102(2)(C), Pub. L. 91-190; 83 Stat. 853; 42 U.S.C. 4332(2)(C).

b. The heading specified above shall be modified to indicate that the statement also covers sections 4(f) of the DOT Act or 108 of the National Historic Preservation Act, when appropriate.

c. Each statement will, as a minimum, contain sections corresponding to paragraph 3 herein, supplemented as necessary to cover other matters provided in this Attachment.

d. The format for the summary to accompany draft and final environmental statements is as follows:

SUMMARY

(Check one) () Draft () Final: Department of Transportation, National Highway Traffic Safety Administration. Name, address, and telephone number of individual who can be contacted for additional information about the proposed action or the statement. (Note: DOT Order 2100.2 prescribes procedures for reporting public contacts in rulemaking.)

(1) Name of Action. (Check one) () Administrative Action. () Legislative Action.

(2) Brief description of action indicating what States (and counties) are particularly affected.

(3) Summary of environmental impact and adverse environmental effects.

(4) List alternatives considered.

(5) (a) (For draft statements) List all Federal, State, and local agencies from which comments have been requested.

(b) (For final statements) List all Federal, State, and local agencies and other sources

from which written comments have been received.

(6) Dates the draft statement and the final statement if issued were made available to the Council on Environmental Quality and the public.

2. Guidance as to content of statement. The following paragraphs of this Attachment are intended to be considered, where relevant, as guidance regarding the content of environmental statements. This guidance is expected to be supplemented by research reports, guidance on methodology, and other material from the literature as may be pertinent to evaluation of relevant environmental factors.

3. General content. The following points are to be covered:

a. A description of the proposed Federal action (e.g., "The proposed Federal action is approval of a grant application to construct * * *"), a statement of its purpose, and a description of the environment affected, including information, summary technical data, and maps and diagrams where relevant, adequate to permit an assessment of potential environmental impact by commenting offices and the public.

(1) Highly technical and specialized analyses and data should generally be avoided in the body of the draft impact statement. Such materials should be appropriately summarized in the body of the environmental statement and attached as appendices or footnoted with adequate bibliographic references.

(2) The statement should succinctly describe the environment of the area affected as it exists prior to a proposed action, including other related Federal activities in the area, their interrelationships, and cumulative environmental impact. The amount of detail provided in such descriptions should be commensurate with the extent and expected impact of the action, and with the amount of information required at the particular level of decision making (planning, feasibility, design, etc.). In order to insure accurate descriptions and environmental considerations, site visits should be made where appropriate.

(3) The statement should identify, as appropriate, population and growth characteristics of the affected area and any population and growth assumptions used to justify the project or program or to determine secondary population and growth impacts resulting from the proposed action and its alternatives (see paragraph 3c(2)). In discussing these population aspects, the statement should give consideration to using the rates of growth in the region of the project contained in the projection compiled for the Water Resources Council by the Bureau of Economic Analysis of the Department of Commerce and the Economic Research

Service of the Department of Agriculture (the OBERS projection).

(4) The sources of data used to identify, quantify, or evaluate any or all environmental consequences must be expressly noted.

b. The relationship of the proposed action and how it may conform to or conflict with adopted or proposed land use plans, policies, controls, and goals and objectives as have been promulgated by affected communities. Where a conflict or inconsistency exists, the statement should describe the extent of reconciliation and the reasons for proceeding notwithstanding the absence of full reconciliation.

c. The probable impact of the proposed action on the environment. (1) This requires assessment of the positive and negative effects of the proposed action is it affects both national and international human environment. The attention given to different environmental factors will vary according to the nature, scale, and location of proposed actions. Among factors to be considered should be the potential effect of the action on such aspects of the environment as those listed in Attachment 2, and in section 520.5(b), *supra*. Primary attention should be given in the statement to discussing those factors most evidently impacted by the proposed action.

(2) Secondary and other foreseeable effects, as well as primary consequences for the environment, should be included in the analyses. Secondary effects, such as impact on fuel consumption, emissions, or noise levels of automobiles or in the use of toxic or scarce materials, may be more substantial than the primary effects of the original action.

d. Alternatives to the proposed action, including, where relevant, those not within the existing authority of the responsible preparing office. Section 102(2)(D) of NEPA requires the responsible agency to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." A rigorous exploration and an objective evaluation of the environmental impacts of all reasonable alternative actions, particularly those that might enhance environmental quality or avoid some or all of the adverse environmental effects, are essential. Sufficient analysis of such alternatives and their environmental benefits, costs, and risks should accompany the proposed action through the review process in order not to foreclose prematurely options which might enhance environmental quality or have less detrimental effects. Examples of such alternatives include: the alternatives of not taking any action or of postponing action pending further study; alternatives requiring actions of a significantly different

nature which would provide similar benefits with different environmental impacts, e.g., low capital intensive improvements, mass transit alternatives to highway construction; alternatives related to different locations or designs or details of the proposed action which would present different environmental impacts. In each case, the analysis should be sufficiently detailed to reveal comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative. Where an existing impact statement already contains such an analysis its treatment of alternatives may be incorporated, provided such treatment is current and relevant to the precise purpose of the proposed action.

e. Any probable adverse environmental effects which cannot be avoided (such as water or air pollution, noise, undesirable land use patterns, or impacts on public parks and recreation areas, wildlife and waterfowl refuges, or on historic sites, damage to life systems, traffic congestion, threats to health, or other consequences adverse to the environmental goals set out in section 101(b) of NEPA). This should be a brief section summarizing in one place those effects discussed in paragraph 3c that are adverse and unavoidable under the proposed action. Included for purposes of contrast should be a clear statement of how all adverse effects will be mitigated. Where mitigating steps are included in the statement, the responsible official shall see that they are carried out.

f. The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity. This section should contain a brief discussion of the extent to which the proposed action involves tradeoffs between short-term environmental gains at the expense of long-term losses, or vice versa, and a discussion of the extent to which the proposed action forecloses future options.

g. Any irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented. This requires identification of unavoidable impacts and the extent to which the action irreversibly curtails the range of potential uses of the environment. "Resources" means not only the labor and materials devoted to an action but also the natural and cultural resources lost or destroyed.

h. An indication of what other interests and considerations of Federal policy are thought to offset the adverse environmental effects of the proposed action identified pursuant to subparagraphs (e) and (f) of this paragraph. The statement should also indicate the extent to which these stated countervailing benefits could be realized by following reasonable alternatives to the proposed action (as identified in subparagraph

(d) of this paragraph) that would avoid some or all of the adverse environmental effects. In this connection if a cost-benefit analysis of the proposed action has been prepared, it, or a summary, should be attached to the environmental impact statement, and should clearly indicate the extent to which environmental costs have not been reflected in such analysis.

i. A discussion of problems and objections raised by other Federal agencies, State and local entities, and citizens in the review process, and the disposition of the issues involved and the reasons therefor. (This section shall be added to the final environmental statement at the end of the review process.)

(1) The draft and final statements should document issues raised through consultations with Federal, State, and local agencies with jurisdiction or special expertise and with citizens, of actions taken in response to comments, public hearings, and other citizens involvement proceedings.

(2) Any unresolved environmental issues and efforts to resolve them, through further consultations or otherwise, should be identified in the final statement. For instance, where an agency comments that the statement has inadequate analysis or that the agency has reservations concerning the impacts, or believes that the impacts are too adverse for approval, either the issue should be resolved or the final statement should reflect efforts to resolve the issue and set forth any action that will result.

(3) The statement should reflect that every effort was made to discover and discuss all major points of view on the environmental effects of the proposed action and alternatives in the draft statement. However, where opposing professional views and responsible opinion have been overlooked in the draft statement and are raised through the commenting process, the environmental effects of the action should be reviewed in light of those views. A meaningful reference should be made in the final statement to the existence of any responsible opposing view not adequately discussed in the draft statement indicating responses to the issues raised.

(4) All substantive comments received on the draft (or summaries of responses from the public which have been exceptionally voluminous) should be attached to the final statement, whether or not each such comment is thought to merit individual discussion in the text of the statement.

j. Draft statement should indicate at appropriate points in the text any underlying studies, reports, and other information obtained and considered in preparing the statement, including any cost-benefit analyses prepared. In the case of documents not likely to be easily accessible (such as inter-

nal studies or reports), the statement should indicate how such information may be obtained. If such information is attached to the statement, care should be taken to insure that the statement remains an essentially self-contained instrument, capable of being understood by the reader without the need for undue cross reference.

4. Publicly owned parklands, recreational areas, wildlife and waterfowl refuges and historic sites. The following points are to be covered:

a. Description of "any publicly owned land from a public park, recreational area or wildlife and waterfowl refuge" or "any land from an historic site" affected or taken by the project. This includes its size, available activities, use, patronage, unique or irreplaceable qualities, relationship to other similarly used lands in the vicinity of the project, maps, plans, slides, photographs, and drawings showing a sufficient scale and detail the project. This also includes its impact on park, recreation, wildlife, or historic areas, and changes in vehicular or pedestrian access.

b. Statement of the "national, State or local significance" of the entire park, recreational area, refuge, or historic site "as determined by the Federal, State or local officials having jurisdiction thereof."

(1) In the absence of such a statement lands will be presumed to be significant. Any statement of "insignificance" by the official having jurisdiction is subject to review by the Department as to whether such statement is capricious.

(2) Where Federal lands are administered for multiple uses, the Federal official having jurisdiction over the lands shall determine whether the subject lands are in fact being used for park, recreation, wildlife, waterfowl, or historic purposes.

c. Similar data, as appropriate, for alternative designs and locations, including detailed cost estimates (with figures showing percentage differences in total project costs) and technical feasibility, and appropriate analysis of the alternatives, including any unique problems present and evidence that the cost or community disruptions resulting from alternative routes reach extraordinary magnitudes. This portion of the statement should demonstrate compliance with the Supreme Court's statement in the Overton Park case, as follows:

[The] very existence of the statute indicates that protection of parkland was to be given paramount importance. The few green havens that are public parks were not to be lost unless there were truly unusual factors present in a particular case or the cost or community disruption resulting from alternative routes reached extraordinary magnitudes. If the statutes are to have any meaning, the Secretary cannot approve the destruction of parkland unless he finds that

alternative routes present unique problems. 401 U.S. 402, 412 (1971).

d. If there is no feasible and prudent alternative, description of all planning undertaken to minimize harm to the protected area and statement of actions taken or to be taken to implement this planning, including measures to maintain or enhance the natural beauty of the lands traversed.

(1) Measures to minimize harm may include replacement of land and facilities, providing land or facilities, provision for functional replacement of the facility (see 49 CFR 25.267).

(2) Design measures to minimize harm: e.g., tunneling, cut and cover, cut and fill, treatment of embankments, planting, screening, maintenance of pedestrian or bicycle paths and noise mitigation measures all reflecting utilization of appropriate interdisciplinary design personnel.

e. Evidence of concurrence or description of efforts to obtain concurrence of Federal, State or local officials having jurisdiction over the section 4(f) property regarding the action proposed and the measures planned to minimize harm.

f. If Federally-owned properties are involved in highway projects, the final statement shall include the action taken or an indication of the expected action after filing a map of the proposed use of the land or other appropriate documentation with the Secretary of the Department supervising the land (23 U.S.C. 317).

g. If land acquired with Federal grant money (Department of Housing and Urban Development open space or Bureau of Outdoor Recreation land and water conservation funds) is involved, the final statement shall include appropriate communications with the grantor agency.

h. TGC will determine application of section 4(f) to public interests in lands, such as easements, reversions, etc.

i. A specific finding by the Administrator that there is no feasible and prudent alternative and that the proposal includes all possible planning to minimize harm to the "4(f) area" involved.

5. Properties and sites of historic and cultural significance. The statement should document actions taken to preserve and enhance districts, sites, buildings, structures, and objects of historical, architectural, archeological, or cultural significance affected by the action.

a. Draft environmental statements should include identification, through consulting the National Register and applying the National Register Criteria (36 CFR Part 800), of properties that are included in or eligible for inclusion in the National Register of Historic Places that may be affected by the project. The National Register is published in its entirety each February in the FEDERAL

REGISTER. Monthly additions and listings of eligible properties are published in the **FEDERAL REGISTER** the first Tuesday of each month. The Secretary of the Interior will advise, upon request, whether properties are eligible for the National Register.

b. If application of the Advisory Council on Historic Preservation's (ACHP) Criteria of Effect (36 CFR Part 800) indicates that the project will have an effect upon a property included in or eligible for inclusion in the National Register of Historic Places, the draft environmental statement should document the effect. Evaluation of the effect should be made in consultation with the State Historic Preservation Officer (SHPO) and in accordance with the ACHP's criteria of Adverse Effect (36 CFR Part 800).

c. Determinations of no adverse effect should be documented in the draft statement with evidence of the application of the ACHP's Criteria of Adverse Effect, the views of the appropriate State Historic Preservation Officer, and submission of the determination to the ACHP for review.

d. If the project will have an adverse effect upon a property included in or eligible for inclusion in the National Register of Historic Places, the final environmental statement should include either an executed Memorandum of Agreement or comments from the Council after consideration of the project at a meeting of the ACHP and an account of actions to be taken in response to the comments of the ACHP. Procedures for obtaining a Memorandum of Agreement and the comments of the Council are found in 36 CFR Part 800.

e. To determine whether the project will have an effect on properties of State or local historical, architectural, archaeological, or cultural significance not included in or eligible for inclusion in the National Register, the responsible official should consult with the State Historic Preservation Officer, with the local official having jurisdiction of the property, and where appropriate, with historical societies, museums, or academic institutions having expertise with regard to the property. Use of land from historic properties of Federal, State and local significance as determined by the official having jurisdiction thereof involves section 4(f) of the DOT Act and documentation should include information necessary to consider a 4(f) determination (see paragraph 4).

6. Impacts of the proposed action on the human environment involving community disruption and relocation. a. The statement should include a description of probable impact sufficient to enable an understanding of the extent of the environmental and social impact of the project alternatives and to consider whether relocation problems can be properly handled. This would include the following information obtainable by visual

inspection of the proposed affected area and from secondary sources and community sources when available.

(1) An estimate of the households to be displaced including the family characteristics (e.g., minorities, and income levels, tenure, the elderly, large families).

(2) Impact on the human environment of an action which divides or disrupts an established community, including where pertinent, the effect of displacement on types of families and individuals affected, effect of streets cut off, separation of residences from community facilities, separation of residential areas.

(3) Impact on the neighborhood and housing to which relocation is likely to take place (e.g., lack of sufficient housing for large families, doublings up).

(4) An estimate of the businesses to be displaced, and the general effect of business dislocation on the economy of the community.

(5) A discussion of relocation housing in the area and the ability to provide adequate relocation housing for the types of families to be displaced. If the resources are insufficient to meet the estimated displacement needs, a description of the actions proposed to remedy this situation including, if necessary, use of housing of last resort.

(6) Results of consultation with local officials and community groups regarding the impacts to the community affected. Relocation agencies and staff and other social agencies can help to describe probable social impacts of this proposed action.

(7) Where necessary, special relocation advisory services to be provided the elderly, handicapped and illiterate regarding interpretations of benefits, assistance in selecting replacement housing and consultation with respect to acquiring, leasing, and occupying replacement housing.

b. This data should provide the preliminary basis for assurance of the availability of relocation housing as required by DOT 5620.1, Replacement Housing Policy, dated June 24, 1970, and 49 CFR 25.53.

7. Considerations relating to pedestrians and bicyclists. Where appropriate, the statement should discuss impacts on and consideration to be given in the development of the project to pedestrian and bicycle access, movement and safety within the affected area, particularly in medium and high density commercial and residential areas.

8. Other social impacts. The general social groups specially benefited or harmed by the proposed action should be identified in the statement including the following:

a. Particular effects of a proposal on the elderly, handicapped, non-drivers, transit dependent, or minorities should be described to the extent reasonably predictable.

b. How the proposal will facilitate or inhibit their access to jobs, educational facilities, religious institutions, health and welfare services, recreational facilities, social and cultural facilities, pedestrian movement facilities, and public transit services.

9. Standards as to noise, air, and water pollution. The statement shall reflect sufficient analysis of the effects of the proposed action on attainment and maintenance of any environmental standards established by law or administrative determination (e.g., noise, ambient air quality, water quality) including the following documentation:

a. With respect to water quality, there should be consultation with the agency responsible for the State water pollution control program as to conformity with standards and regulations regarding storm sewer discharge sedimentation control, and other non-point source discharges.

b. The comments or determinations of the offices charged with administration of the State's implementation plan for air quality as to the consistency of the project with State plans for the implementation of ambient air quality standards.

c. Conformity to adopted noise standards, compatible, if appropriate, with different land uses.

10. Energy supply and natural resources development. Where applicable, the statement should reflect consideration of whether the project or program will have any effect on either the production or consumption of energy and other natural resources, and discuss such effects if they are significant.

11. Flood hazard evaluation. When an alternative under consideration encroaches on a flood plain, the statement should include evidence that studies have been made and evidence of consultations with agencies with expertise have been carried out. Necessary measures to handle flood hazard problems should be described. In compliance with Executive Order 11296, and Flood Hazard Guidelines for Federal Executive Agencies, promulgated by the Water Resources Council, or how such requirements can be met during project development.

12. Considerations relating to wetlands or coastal zones. Where wetlands or coastal zones are involved, the statement should include:

a. Information on location, types, and extent of wetlands areas which might be affected by the proposed action.

b. An assessment of the impacts resulting from both construction and operation of the project on the wetlands and associated wildlife, and measures to minimize adverse impacts.

c. A statement by the local representative of the Department of the Interior, and any other responsible officials with special expertise, setting forth his views on the im-

pacts of the project on the wetlands, the worth of the particular wetlands areas involved to the community and to the Nation, and recommendations as to whether the proposed action should proceed, and, if applicable, along what alternative route.

d. Where applicable, a discussion of how the proposed project relates to the State coastal zone management program for the particular State in which the project is to take place.

13. Construction impacts. In general, adverse impacts during construction will be of less importance than long-term impacts of a proposal. Nonetheless, statements should appropriately address such matters as the following identifying any special problem areas:

a. Noise impacts from construction and any specifications setting maximum noise levels.

b. Disposal of spoil and effect on borrow areas and disposal sites (include specifications where special problems are involved).

c. Measures to minimize effects on traffic and pedestrians.

14. Land use and urban growth. The statement should include, to the extent relevant and predictable:

a. The effect of the project on land use, development patterns, and urban growth.

b. Where significant land use and development impacts are anticipated, identify public facilities needed to serve the new development and any problems or issues which would arise in connection with these facilities, and the comments of agencies that would provide these facilities.

ATTACHMENT 2—AREAS OF ENVIRONMENTAL IMPACT AND FEDERAL AGENCIES AND FEDERAL-STATE AGENCIES WITH JURISDICTION BY LAW OR SPECIAL EXPERTISE TO COMMENT THEREON

EDITORIAL NOTE: Filed as part of the original document. For text see 39 FR 32546, Sept. 30, 1975.

ATTACHMENT 3—OFFICES WITHIN FEDERAL AGENCIES AND FEDERAL-STATE AGENCIES FOR INFORMATION REGARDING THE AGENCIES' IMPACT STATEMENTS FOR WHICH COMMENTS ARE REQUESTED

EDITORIAL NOTE: Filed as part of the original document. For text see 39 FR 35248, Sept. 30, 1975.

ATTACHMENT 4—STATE AND LOCAL AGENCY REVIEW OF IMPACT STATEMENTS

1. OBM Revised Circular No. A-95 through its system of clearinghouses provides a means for securing the views of State and local environmental agencies, which can assist in the preparation of impact statements. Under A-95, review of the proposed project in the case of federally assisted projects (Part I of A-95) generally takes place prior to the preparation of the impact statement. Therefore, comments on the environmental effects of the proposed project that are secured during this stage of the A-95 process represent inputs to the environmental impact statement.

2. In the case of direct Federal development (Part II of A-95), Federal agencies are required to consult with clearinghouses at the earliest practicable time in the planning of the project or activity. Where such consultation occurs prior to completion of the draft impact statement, comments relating to the environmental effects of the proposed action would also represent inputs to the environmental impact statement.

3. In either case, whatever comments are made on environmental effects of proposed Federal or federally assisted projects by clearinghouses, or by State and local environmental agencies through clearinghouses, in the course of the A-95 review should be attached to the draft impact statement when it is circulated for review. Copies of the statement should be sent to the agencies making such comments. Whether those agencies then elect to comment again on the basis of the draft impact statement is a matter to be left to the discretion of the commenting agency depending on its resources, the significance of the project and the extent to which its earlier comments were considered in preparing the draft statement.

4. The clearinghouses may also be used, by mutual agreement, for securing reviews of the draft environmental impact statement. However, the Federal agency may wish to deal directly with appropriate State or local agencies in the review of impact statements because the clearinghouses may be unwilling or unable to handle this phase of the process. In some cases, the Governor may have designated a specific agency, other than the clearinghouse, for securing reviews of impact statements. In any case, the clearinghouses should be sent copies of the impact statement.

5. To aid clearinghouses in coordinating State and local comments, draft statements should include copies of State and local agency comments made earlier under the A-95 process and should indicate on the summary sheet those other agencies from which

comments have been requested, as specified in Attachment 1.

PART 523—VEHICLE CLASSIFICATION

Sec.

- 523.1 Scope.
- 523.2 Definitions.
- 523.3 Automobile.
- 523.4 Passenger automobile.
- 523.5 Light truck.

§ 523.1 Scope.

This part establishes categories of vehicles that are subject to title V of the Motor Vehicle Information and Cost Savings Act, 15 U.S.C. 2001 et seq.

(Sec. 301, Pub. L. 94-163, 80 Stat. 901 (15 U.S.C. 2001))

[42 FR 38362, July 28, 1977]

§ 523.2 Definitions.

"Approach angle" means the smallest angle, in a plane side view of an automobile, formed by the level surface on which the automobile is standing and a line tangent to the front tire static loaded radius arc and touching the underside of the automobile forward of the front tire.

"Axle clearance" means the vertical distance from the level surface on which an automobile is standing to the lowest point on the axle differential of the automobile.

"Basic vehicle frontal area" is used as defined in 40 CFR 66.079-2.

"Breakover angle" means the supplement of the largest angle, in the plan side view of an automobile, that can be formed by two lines tangent to the front and rear static loaded radii arcs and intersecting at a point on the underside of the automobile.

"Cargo-carrying volume" means the luggage capacity or cargo volume index, as appropriate, and as those terms are defined in 40 CFR 600.315, in the case of automobiles to which either of those terms apply. With respect to automobiles to which neither of those terms apply "cargo-carrying volume" means the total volume in cubic feet rounded to the nearest 0.1 cubic feet of either an automobile's enclosed nonseating space that is intended primarily for carrying cargo

and is not accessible from the passenger compartment, or the space intended primarily for carrying cargo bounded in the front by a vertical plane that is perpendicular to the longitudinal centerline of the automobile and passes through the rearmost point on the rearmost seat and elsewhere by the automobile's interior surfaces.

"Curb weight" is defined the same as "vehicle curb weight" in 40 CFR Part 86.

"Departure angle" means the smallest angle, in a plane side view of an automobile, formed by the level surface on which the automobile is standing and a line tangent to the rear tire static loaded radius arc and touching the underside of the automobile rearward of the rear tire.

"Gross vehicle weight rating" means the value specified by the manufacturer as the loaded weight of a single vehicle.

"Passenger-carrying volume" means the sum of the front seat volume and, if any, rear seat volume, as defined in 40 CFR 600.315, in the case of automobiles to which that term applies. With respect to automobiles to which that term does not apply, "passenger-carrying volume" means the sum in cubic feet, rounded to the nearest 0.1 cubic feet, of the volume of a vehicle's front seat and seats to the rear of the front seat, as applicable, calculated as follows with the head room, shoulder room, and leg room dimensions determined in accordance with the procedures outlined in Society of Automotive Engineers Recommended Practice J1100a, Motor Vehicle Dimensions (Report of Human Factors Engineering Committee, Society of Automotive Engineers, approved September 1973 and last revised September 1975).

(a) For front seat volume, divide 1.728 into the product of the following SAE dimensions, measured in inches to the nearest 0.1 inches, and round the quotient to the nearest 0.001 cubic feet.

(1) H61-Effective head room—front.

(2) W3-Shoulder room—front.

L34-Maximum effective leg room-accelerator.

(b) For the volume of seats to the rear of the front seat, divide 1.728 into the product of the following SAE di-

mensions, measured in inches to the nearest 0.1 inches, and rounded the quotient to the nearest 0.001 cubic feet.

(1) H63-Effective head room—second.

(2) W4-Shoulder room—second.

(3) L51-Minimum effective leg room—second.

"Running clearance" means the distance from the surface on which an automobile is standing to the lowest point on the automobile, excluding unsprung weight.

"Static loaded radius arc" means a portion of a circle whose center is the center of a standard tire-rim combination of an automobile and whose radius is the distance from that center to the level surface on which the automobile is standing, measured with the automobile at curb weight, the wheel parallel to the vehicle's longitudinal centerline, and the tire inflated to the manufacturer's recommended pressure.

"Temporary living quarters" means a space in the interior of an automobile in which people may temporarily live and which includes sleeping surfaces, such as beds, and household conveniences, such as a sink, stove, refrigerator, or toilet.

(Sec. 9, Pub. L. 89-670, 80 Stat. 981 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976)

(42 FR 38362, July 28, 1977, as amended at 43 FR 12013, Mar. 23, 1978)

§ 523.3 Automobile.

(a) An automobile is any 4-wheeled vehicle propelled by fuel which is manufactured primarily for use on public streets, roads, and highways (except any vehicle operated exclusively on a rail or rails), and that either—

(1) Is rated at 6,000 pounds gross vehicle weight or less; or

(2) Which—

(i) Is rated more than 6,000 pounds gross vehicle weight, but less than 10,000 pounds gross vehicle weight,

(ii) Is a type of vehicle for which the Administrator determines, under paragraph (b) of this section, average fuel economy standards are feasible, and

(iii)(A) Is a type of vehicle for which the Administrator determines, under paragraph (b) of this section, average fuel economy standards will result in significant energy conservation, or

(B) Is a type of vehicle which the Administrator determines, under paragraph (b) of this section, is substantially used for the same purposes as vehicles described in paragraph (a)(1) of this section.

(b) The following vehicles rated at more than 6,000 pounds and less than 10,000 pounds gross vehicle weight are determined to be automobiles:

(1) Vehicles which would satisfy the criteria in § 523.4 (relating to passenger automobiles) but for their gross vehicle weight rating.

(2) Vehicles which would satisfy the criteria in § 523.5 (relating to light trucks) but for their gross vehicle weight rating, and which

(i) Have a basic vehicle frontal area of 45 square feet or less,

(ii) Have a curb weight of 6,000 pounds or less,

(iii) Have a gross vehicle weight rating of 8,500 pounds or less, and

(iv) Are manufactured during the 1980 model year or thereafter.

(Sec. 9, Pub. L. 88-670, 80 Stat. 961 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 80 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976)

[42 FR 38362, July 28, 1977, as amended at 43 FR 12013, Mar. 23, 1978; 44 FR 4493, Jan. 2, 1979]

§ 523.4 Passenger automobile.

A passenger automobile is any automobile (other than an automobile capable of off-highway operation) manufactured primarily for use in the transportation of not more than 10 individuals.

(Sec. 301, Pub. L. 94-163, 80 Stat. 901 (15 U.S.C. 2001))

[42 FR 38362, July 28, 1977]

§ 523.5 Light truck.

(a) A light truck is an automobile other than a passenger automobile which is either designed for off-highway operation, as described in paragraph (b) of this section, or designed to perform at least one of the following functions:

(1) Transport more than 10 persons;
(2) Provide temporary living quarters;

(3) Transport property on an open bed;

(4) Provide greater cargo-carrying than passenger-carrying volume; or

(5) Permit expanded use of the automobile for cargo-carrying purposes or other nonpassenger-carrying purposes through the removal of seats by means installed for that purpose by the automobile's manufacturer or with simple tools, such as screwdrivers and wrenches, so as to create a flat, floor level, surface extending from the forwardmost point of installation of those seats to the rear of the automobile's interior.

(b) An automobile capable of off-highway operation is an automobile—

(1) (i) That has 4-wheel drive; or

(ii) Is rated at more than 6,000 pounds gross vehicle weight; and

(2) That has at least four of the following characteristics (see Figure 1) calculated when the automobile is at curb weight, on a level surface, with the front wheels parallel to the automobile's longitudinal centerline, and the tires inflated to the manufacturer's recommended pressure—

(i) Approach angle of not less than 28 degrees.

(ii) Breakover angle of not less than 14 degrees.

(iii) Departure angle of not less than 20 degrees.

(iv) Running clearance of not less than 8 inches.

(v) Front and rear axle clearances of not less than 7 inches each.

(Sec. 9, Pub. L. 88-670, 80 Stat. 961 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 80 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976)

[42 FR 38362, July 28, 1977, as amended at 43 FR 12013, Mar. 23, 1978]

PART 525—EXEMPTIONS FROM AVERAGE FUEL ECONOMY STANDARDS

Sec.

525.1 Scope.

525.2 Purpose.

525.3 Applicability.

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525.11 Termination of exemption; amendment of alternative average fuel economy standard.

525.12 Public inspection of information.

AUTHORITY: Sec. 301, Pub. L. 94-163, 89 Stat. 871 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976, unless otherwise noted.

SOURCE: 42 FR 38376, July 28, 1977, unless otherwise noted.

§ 525.1 Scope.

This part establishes procedures under section 502(c) of the Motor Vehicle Information and Cost Savings Act, as amended (15 U.S.C. 2002) for the submission and disposition of petitions filed by low volume manufacturers of passenger automobiles to exempt them from the average fuel economy standards for passenger automobiles and to establish alternative average fuel economy standards for those manufacturers.

§ 525.2 Purpose.

The purpose of this part is to provide content and format requirements for low volume manufacturers of passenger automobiles which desire to petition the Administrator for exemption from applicable average fuel economy standards and for establishment of appropriate alternative average fuel economy standards and to give interested persons an opportunity to present data, views and arguments on those petitions.

§ 525.3 Applicability.

This part applies to passenger automobile manufacturers.

§ 525.4 Definitions.

(a) **Statutory terms.** (1) The terms "fuel," "manufacture," "manufacturer," and "model year," are used as defined in section 501 of the Act.

(2) The terms "average fuel economy," "fuel economy," and "model type" are used as defined in 40 CFR 600.002-77.

(3) The term "automobile" means a vehicle determined by the Administrator

under 49 CFR Part 523 to be an automobile.

(4) The term "passenger automobile" means an automobile determined by the Administrator under 49 CFR Part 523 to be a passenger automobile.

(5) The term "customs territory of the United States" is used as defined in 19 U.S.C. 1202.

(b) **Other terms.** (1) The term "base level" and "vehicle configuration" are used as defined in 40 CFR 600.002-77.

(2) The term "vehicle curb weight" is used as defined in 40 CFR 85.002.

(3) The term "interior volume index" is used as defined in 40 CFR 600.315-77.

(4) The term "frontal area" is used as defined in 40 CFR 85.129-79.

(5) The term "basic engine" is used as defined in 40 CFR 600.002-77(a)(21).

(6) The term "designated seating position" is defined in 49 CFR 571.3.

(7) As used in this part, unless otherwise required by the context:

"Act" means the Motor Vehicle Information and Cost Savings Act (Pub. L. 92-513), as amended by the Energy Policy and Conservation Act (Pub. L. 94-163);

"Administrator" means the Administrator of the National Highway Traffic Safety Administration;

"Affected model year" means a model year for which an exemption and alternative average fuel economy standard are requested under this Part;

"Production mix" means the number of passenger automobiles, and their percentage of the petitioner's annual total production of passenger automobiles, in each vehicle configuration which a petitioner plans to manufacture in a model year; and

"Total drive ratio" means the ratio of an automobile's engine rotational speed (in revolutions per minute) to the automobile's forward speed (in miles per hour).

(Sec. 301, Pub. L. 94-163, 89 Stat. 871 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976; sec. 9, Pub. L. 89-670, 80 Stat. 981 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976)

[42 FR 38376, July 28, 1977, as amended at 44 FR 55579, Sept. 27, 1979]

§ 525.5 Limitation on eligibility.

Any manufacturer that manufactures (whether or not in the customs territory of the United States) 10,000 or more passenger automobiles in the second model year preceding an affected model year or in the affected model year is ineligible for an exemption for that affected model year.

§ 525.6 Requirements for petition.

Each petition filed under this part must—

(a) Identify the model year or years for which exemption is requested;

(b) Be submitted not later than 24 months before the beginning of the affected model year, unless good cause for later submission is shown;

(c) Be submitted in three copies to: Administrator, National Highway Traffic Safety Administration, Washington, D.C. 20590;

(d) Be written in the English language;

(e) State the full name, address, and title of the official responsible for preparing the petition, and the name and address of the manufacturer;

(f) Set forth in full data, views and arguments of the petitioner supporting the exemption and alternative average fuel economy standard requested by the petitioner, including the information and data specified by § 525.7 and the calculations and analyses used to develop that information and data. No documents may be incorporated by reference in a petition unless the documents are submitted with the petition;

(g) Specify and segregate any part of the information and data submitted under this part that the petitioner wishes to have withheld from public disclosure in accordance with Part 512 of this chapter.

(Sec. 301, Pub. L. 94-163, 89 Stat. 871 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976; sec. 9, Pub. L. 89-670, 89 Stat. 981 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976)

[42 FR 38376, July 28, 1977, as amended at 44 FR 55579, Sept. 27, 1979; 46 FR 2083, Jan. 8, 1981]

§ 525.7 Basis for petition.

(a) The petitioner shall include the information specified in paragraphs (b) through (h) in its petition.

(b) Whether the petitioner controls, is controlled by, or is under common control with another manufacturer of passenger automobiles, and if so, the nature of that control relationship, and the total number of passenger automobiles manufactured by such other manufacturer or manufacturers.

(c) The total number of passenger automobiles manufactured or likely to be manufactured (whether or not in the customs territory of the United States) by the petitioner in the second model year immediately preceding each affected model year.

(d) For each affected model year, the petitioner's projections of the most fuel efficient production mix of vehicle configurations and base levels of its passenger automobiles which the petitioner could sell in that model year, and a discussion demonstrating that these projections are reasonable. The discussion shall include information showing that the projections are consistent with—

(1) The petitioner's annual total production and production mix of passenger automobiles manufactured or likely to be manufactured in each of the four model years immediately preceding that affected model year;

(2) Its passenger automobile production capacity for that affected model year;

(3) Its efforts to comply with that average fuel economy standard; and

(4) Anticipated consumer demand in the United States for passenger automobiles during that affected model year.

(e) For each affected model year, a description of the following features of each vehicle configuration of the petitioner's passenger automobiles to be manufactured in that affected model year:

(1) Maximum overall body width, overall length, and overall height, determined in accordance with Motor Vehicle Dimensions SAE J1100a (report of Human Engineering Committee, approved September 1973, as revised September 1975);

- (2) Vehicle curb weight;
 - (3) Number of designated seating positions and interior volume index;
 - (4) Basic engine, displacement, and SAE net horsepower;
 - (5) Fuel metering system, including the number of carburetor barrels, if applicable;
 - (6) Drive train configuration and total drive ratio;
 - (7) Emission control system;
 - (8) Dynamometer road load setting, determined in accordance with 40 CFR Part 86, and the method used to determine that setting, including information indicating whether the road load setting was adjusted to account for the presence of air conditioning and whether the setting was based on the use of radial ply tires; and
 - (9) Use of synthetic lubricants, low viscosity lubricants, or lubricants with additives that affect friction characteristics in the crankcase, differential, and transmission of the vehicles tested under the requirements of 40 CFR Parts 86 and 800. With respect to automobiles which will use these lubricants, indicate which one will be used and explain why that type was chosen. With respect to automobiles which will not use these lubricants, explain the reasons for not so doing.
- (f) For each affected model year, a fuel economy value for each vehicle configuration specified in 40 CFR 600.506(a)(2), base level, and model type of the petitioner's passenger automobiles to be manufactured in that affected model year calculated in accordance with Subpart C of 40 CFR Part 600 and based on tests or analyses comparable to those prescribed or permitted under 40 CFR Part 600 and a description of the test procedures or analytical methods.
- (g) For each affected model year, an average fuel economy figure for the petitioner's passenger automobiles to be manufactured in that affected model year calculated in accordance with 40 CFR 600.510(e) and based upon the fuel economy values provided under paragraph (f) of this section and upon the petitioner's production mix projected under paragraph (d) of this section for the affected model year.

(h) Information demonstrating that the average fuel economy figure provided for each affected model year under paragraph (g) of this section is the maximum feasible average fuel economy achievable by the petitioner for that model year, including—

(1) For each affected model year and each of the two model years immediately following the first affected model year, a description of the technological means selected by the petitioner for improving the average fuel economy of its automobiles to be manufactured in that model year.

(2) A chronological description of the petitioner's past and planned efforts to implement the means described under paragraph (h)(1) of this section.

(3) A description of the effect of other Federal motor vehicle standards on the fuel economy of the petitioner's automobiles.

(4) For each affected model year, a discussion of the alternative and additional means considered but not selected by the petitioner that would have enabled its passenger automobiles to achieve a higher average fuel economy than is achievable with the means described under paragraph (h)(1) of this section. This discussion must include an explanation of the reasons the petitioner had for rejecting these additional and alternative means.

(5) In the case of a petitioner which plans to increase the average fuel economy of its passenger automobiles to be manufactured in either of the two model years immediately following the first affected model year, an explanation of the petitioner's reasons for not making those increases in that affected model year.

(Sec. 301, Pub. L. 94-163, 89 Stat. 871 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976; sec. 9, Pub. L. 99-570, 80 Stat. 961 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976)

(42 FR 38376, July 28, 1977, as amended at 44 FR 55579, Sept. 27, 1979)

§ 525.8 Processing of petitions.

- (a) If a petition is found not to contain the information required by this

part, the petition is informed about the areas of insufficiency and advised that the petition will not receive further consideration until the required information is submitted.

(b) The Administrator may request the petitioner to provide information in addition to that required by this part.

(c) The Administrator publishes a proposed decision in the *FEDERAL REGISTER*. The proposed decision indicates the proposed grant of the petition and establishment of an alternative average fuel economy standard, or the proposed denial of the petition, specifies the reasons for the proposal and invites written public comment on the proposal.

(d) Any interested person may, upon written request to the Administrator not later than 15 days after the publication of a notice under paragraph (c) of this section, meet informally with an appropriate official of the National Highway Traffic Safety Administration to discuss the petition or notice.

(e) After the conclusion of the period for public comment on the proposal, the Administrator publishes a final decision in the *FEDERAL REGISTER*. The final decision is based on the petition, written public comments, and other available information. The final decision sets forth the grant of the exemption and establishes an alternative average fuel economy standard or the denial of the petition, and the reasons for the decision.

(Sec. 301, Pub. L. 94-163, 89 Stat. 871 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976); (sec. 9, Pub. L. 99-670, 90 Stat. 901 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976)

[42 FR 38376, July 28, 1977, as amended at 44 FR 55579, Sept. 27, 1979]

§ 525.9 Duration of exemption.

An exemption may be granted under this part for not more than three model years.

§ 525.10 Renewal of exemption.

A manufacturer exempted under this part may request renewal of its exemption by submitting a petition

meeting the requirements of §§ 525.6 and 525.7.

§ 525.11 Termination of exemption; amendment of alternative average fuel economy standard.

(a) Any exemption granted under this part for an affected model year does not apply to a manufacturer that is ineligible under § 525.5 for an exemption in that model year.

(b) The administrator may initiate rulemaking either on his own motion or on petition by an interested person to terminate an exemption granted under this part or to amend an alternative average fuel economy standard established under this part.

(c) Any interested persons may petition the Administrator to terminate an exemption granted under this part or to amend an alternative average fuel economy standard established under this part.

§ 525.12 Public inspection of information.

(a) Except as provided in paragraph (b), any person may inspect available information relevant to a petition under this part, including the petition and any supporting data, memoranda of informal meetings with the petitioner or any other interested persons, and the notices regarding the petition, in the Docket Section of the National Highway Traffic Safety Administration. Any person may obtain copies of the information available for inspection under this paragraph in accordance with Part 7 of the regulations of the Office of the Secretary of Transportation (49 CFR Part 7).

(b) Except for the release of confidential information authorized by section 505 of the Act and Part 512 of this chapter, information made available for public inspection does not include information for which confidentiality is requested under § 525.6(g) and is granted in accordance with Part 512 and sections 502 and 505 of the Act and section 552(b) of title 5 of the U.S.C.

[46 FR 2063, Jan. 8, 1981]

PART 526—PETITIONS AND PLANS FOR RELIEF UNDER THE AUTOMOBILE FUEL EFFICIENCY ACT OF 1980

Sec.

526.1 General provisions.

526.2 U.S. production by foreign manufacturer.

526.3 Transfer of vehicle from foreign to U.S. production.

526.4 Adjustment of fuel economy standards for 4-wheel drive light trucks.

526.5 Earning offsetting monetary credits in future model years.

Authority: Sec. 9, Pub. L. 89-670, 80 Stat. 931 (49 U.S.C. 1657); Sec. 301, Pub. L. 94-163, 89 Stat. 901 (15 U.S.C. 2002 and 2003); delegation of authority at 49 CFR 1.50.

Source: 47 FR 7248, Feb. 18, 1982 (interim), and 47 FR 32721, July 29, 1982 (final), unless otherwise noted.

§ 526.1 General provisions.

(a) Applicability. These regulations apply to petitions and plans submitted under the Automobile Fuel Efficiency Act of 1980, Pub. L. 96-425, as codified in Title V of the Motor Vehicle Information and Cost Savings Act, 15 U.S.C. 2001 *et seq.*

(b) Address. Each petition and plan submitted under the Automobile Fuel Efficiency Act of 1980 must be addressed to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington D.C. 20590.

(c) Authority and scope of relief. Each petition or plan must specify the specific provision of the Act under which relief is being sought. The petition or plan must also specify the model years for which relief is being sought.

§ 526.2 U.S. production by foreign manufacturer.

Each petition filed under section 4(a) of the Act must contain the following information:

(a) For each model type (as defined by the Environmental Protection Agency in 40 CFR Part 600) planned by the petitioner to be sold in the United States (regardless of place of manufacture), and for each model year beginning with the year before the first one for which relief is sought by the petition through the last year covered by the petition, the following

information based on the petitioner's current product plan and the assumption that the petition will be granted:

(1) A description of the model type, including car line designation, engine displacement and type, transmission type, and average fuel economy;

(2) U.S. sales projected for the model type;

(3) The average percentage of the cost to the manufacturer of the model type which is attributable to value added in the United States or Canada, determined in accordance with 40 CFR 600.511-80, and the total manufacturing cost per vehicle; and

(4) In the case of model types not offered for sale in the United States before the first year for which relief is sought in the petition or other model types for which expansions in production capacity are planned during the years covered by the petition, information (including any marketing surveys) indicating from where the additional sales will be captured. If sales are projected to be captured from U.S. manufacturers, the petition must provide an estimate of the employment impact on those manufacturers of the lost sales and the gain in employment for the petitioner and its U.S. suppliers.

(b) The total number of persons employed in the United States by the petitioner, excluding non-motor vehicle industry related employees, for each model year covered by the petition and for the model year immediately prior to those years.

(c) A description of how the petitioner's responses to paragraphs (a) and (b) of this section would differ if the petition were denied.

§ 526.3 Transfer of vehicle from foreign to U.S. production.

Each plan submitted under section 4(b) of the Automotive Fuel Efficiency Act of 1980 must contain the following information:

(a) For each model year for which relief is sought in the plan and for each model type of automobile sought to be included by the submitter in its domestic fleet under the plan (i.e., those with 50 to 75 percent U.S. value added), provide the following information:

(1) A description of the model type, including engine type and displacement, transmission class, car line designation, and fuel economy;

(2) The projected U.S. sales of the model type;

(3) The average total manufacturing cost per vehicle for the model type;

(4) The percentage of the cost to the manufacturer attributable to value added in the United States or Canada for the model type;

(b) For each year covered by the plan, a list of individual product actions (e.g., change from imported engine to domestically manufactured engine) which will increase the domestic content of the affected vehicles. For each action, provide the model year in which the action will take effect, a description of the nature of the action, and the percentage change in domestic content resulting from the action.

§ 526.4 Adjustment of fuel economy standards for 4-wheel drive light trucks.

Each petition submitted under section 5 of the Automobile Fuel Efficiency Act of 1980 must contain the following information:

(a) For each configuration (as defined by the Environmental Protection Agency in 40 CFR Part 600) of 4-wheel drive light trucks to be manufactured by the petitioner and for each model year from the year in which the petition is filed to the year for which relief is sought:

(1) Model designation and type (e.g., K-15 pickup);

(2) Test weight;

(3) Gross vehicle weight rating;

(4) Engine displacement, cylinder configuration and engine type;

(5) Transmission type;

(6) Fuel economy;

(7) Projected sales;

(8) Rear axle ratio; and

(9) N/V ratio.

(b) A list and full description of each planned product action (e.g., new transmission, addition of improved tires) which will affect the average fuel economy of the petitioner's 4-wheel drive light trucks beginning with the current model year and ending with the model year for which relief is sought.

(c) An indication of which configurations specified under paragraph (a) of this section are affected by each product action specified under paragraph (b) of this section.

(d) The fuel economy effect of each product action specified under paragraph (b) of this section per affected vehicle.

(e) The petitioner's actual or projected average fuel economy for 4-wheel drive light trucks subject to fuel economy standards for the model year for which relief is sought, the three preceding model years and the three following model years. For model years 1979 and 1982-85, also provide actual or projected fuel economies for the combined fleet of 2-wheel drive and 4-wheel drive light trucks, and the number of vehicles in the combined fleet. For those same five model years, provide the number of vehicles in the combined fleet which are subject to a fuel economy standard for 4-wheel drive light trucks.

(f) The actions which the petitioner would undertake to comply with the fuel economy standard for 4-wheel drive light trucks in the model year for which relief is sought and which the petitioner believes would result in severe economic impacts.

(g) The economic effects (such as reduction in employment or plant closings) which would result from undertaking the actions specified under paragraph (f) of this section. Provide information to support the conclusion that these impacts would result from attempted compliance. If reductions in employment or plant closings are projected, identify the plants which may be affected and the number of employees at each plant which are involved in the production of 4-wheel drive light trucks.

§ 526.5 Earning offsetting monetary credits in future model years.

Each plan submitted under section 6(b) of the Automobile Fuel Efficiency Act of 1980 must contain the following information:

(a) Projected average fuel economy and production levels for the class of automobiles which may fail to comply with a fuel economy standard and for

any other classes of automobiles from which credits may be transferred, for the current model year and for each model year thereafter ending with the last year covered by the plan. For light truck credit transfers which may occur between different classes of light trucks, provide the information specified in § 526.4(e).

(b) A list and full description of each planned product action (e.g., new model, mix change) which will affect the average fuel economy of the class of automobiles subject to the credit earning plan, for each model year beginning with the current model year and ending with the last year covered by the credit earning plan.

(c) The portion of the petitioner's fleet affected by each product action (e.g., all K-cars with 6-cylinder engines) and the number of affected vehicles.

(d) The fuel economy effect of each product action specified under paragraph (b) of this section per affected vehicle.

PART 527—REDUCTION OF PASSENGER AUTOMOBILE AVERAGE FUEL ECONOMY STANDARDS

Sec.

- 527.1 Scope and purpose.
- 527.2 Applicability.
- 527.3 Definitions.
- 527.4 Eligibility.
- 527.5 Requirements for petition.
- 527.6 Technology.
- 527.7 Fuel economy of vehicle configurations and model types.
- 527.8 Average fuel economy.
- 527.9 Federal standards fuel economy reduction.
- 527.10 Projected production total and mix.
- 527.11 Production mix for determining Federal standards fuel economy reductions.
- 527.12 Calculation of fuel economy values and average fuel economy.
- 527.13 Supplementary information requirements.
- 527.14 Processing of petitions.
- 527.15 Public hearing.
- 527.16 Public inspection of information.

AUTHORITY: Sec. 9, Pub. L. 89-670, 80 Stat. 931 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 80 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976.

SOURCE: 42 FR 58938, Nov. 14, 1977, unless otherwise noted.

§ 527.1 Scope and purpose.

This part establishes procedures for the submission and disposition of petitions filed by manufacturers of passenger automobiles to obtain reduction of the applicable average fuel economy standard for model year 1978, 1979, or 1980. These reductions are intended to offset any loss of fuel economy due to the application in that year to passenger automobiles of Federal emission, safety, noise, or damageability standards more stringent than those applicable in model year 1975. This part also establishes procedures for holding public hearings on those petitions.

§ 527.2 Applicability.

This part applies to manufacturers of passenger automobiles.

§ 527.3 Definitions.

(a) *Statutory terms.* (1) The terms "Federal standards fuel economy reduction," "fuel," "manufacturer," "model year," and "reasonably selected technology" are used as defined in section 501 or 502 of the Act.

(2) The terms "average fuel economy," "fuel economy," and "model type" are used as defined in 40 CFR 600.002-77.

(3) The terms "automobile" and "passenger automobile" are used as defined in sections 501 of the Act and in accordance with the determinations in 49 CFR Part 523.

(b) *Other terms.* (1) The terms "base level" and "vehicle configuration" are used as defined in 40 CFR 600.002-77.

(2) As used in this part, unless otherwise required by the context—

"Act" means the Motor Vehicle Information and Cost Savings Act (Pub. L. 92-513), as amended by the Energy Policy and Conservation Act (Pub. L. 94-163).

"Administration" means the National Highway Traffic Safety Administration.

"Affected model year" means the model year for which a reduction of an average fuel economy standard is requested under this part.

"Category of Federal standards" means any of the following categories

of motor vehicle standards and associated measurement procedures—

(i) Emissions standards issued under section 202 of the Clean Air Act (42 U.S.C. 1857f-1), and emissions standards applicable by reasons of section 209(b) of that Act (42 U.S.C. 1857f-6a(b));

(ii) Safety standards issued under the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1381 et seq.);

(iii) Noise emission standards issued under section 6 of the Noise Control Act of 1972 (42 U.S.C. 4905); or

(iv) Property loss reduction standards issued under title I of the Act (15 U.S.C. 1911 et seq.).

"EPA Administrator" means the Administrator of the Environmental Protection Agency.

"Modifications" means changes by a petitioner in the technology of a passenger automobile consistent with the need of the Nation to improve automobile fuel economy and with the energy savings, economic costs, and leadtime requirements associated with the technologies that would have been practically available to the petitioner given the applicability of the model year 1975 standards in the category or categories of Federal standard for which a reduction is sought.

"NHTSA Administrator" means the Administrator of the National Highway Traffic Safety Administration.

"Production mix" means the number of passenger automobiles, and the percentage of the petitioner's annual total production of passenger automobiles, in each vehicle configuration which a petitioner plans to produce in a specified model year.

"Set 1" means the set of passenger automobiles which a petitioner will produce in the affected model year.

"Set 2" means the set of passenger automobiles which a petitioner would have produced in the affected model year had the model year 1975 standards in all categories of Federal standards for which a Federal standards fuel economy reduction is sought been the only standards in those categories.

§ 527.4 Eligibility.

Any manufacturer of passenger automobiles may petition the NHTSA

Administrator under this part for a reduction of the average fuel economy standard applicable to passenger automobiles for model year 1978, 1979, or 1980.

§ 527.5 Requirements for petition.

Each petition filed under this part must:

(a) Request the reduction of an average fuel economy standard for not more than one model year;

(b) Identify the affected model year;

(c) Be submitted within 24-month period immediately preceding the beginning of the affected model year;

(d) Be submitted in twenty copies to: Administrator, National Highway Traffic Safety Administration, Washington, D.C. 20590;

(e) Be written in the English language;

(f) State the full name, address, and title of the official responsible for the preparation of the petition; and

(g) Set forth in full the data, views, and arguments of the petitioner supporting the Federal standards fuel economy reduction requested in its petition, including the information and data specified in §§ 527.6 through 527.12 and the calculations and analyses used to develop the information and data. No documents may be incorporated by reference in a petition unless the documents are submitted with the petition.

§ 527.6 Technology.

(a) The petitioner shall submit the following information as part of its petition—

(1) *Set 1 technology.* For each vehicle configuration specified in 40 CFR 600.506 (a)(2)(iii) of the petitioner's passenger automobiles to be produced in the affected model year, the information specified in paragraph (a)(1) (i) and (ii) of this section:

(i) A description of the technology that is incorporated in the vehicle configuration and that either relates to the petitioner's efforts to comply with any category of Federal standards or affects the fuel economy of the vehicle configuration;

(ii) A description of any alternative or additional technology that was

practicably available to the petitioner for incorporation in the vehicle configuration and the use of which would have enabled that vehicle configuration to achieve higher fuel economy and would have resulted in a smaller Federal standards fuel economy reduction than the technology described under paragraph (a)(1)(i) of this section; and

(iii) For each item of alternative technology described under paragraph (a)(1)(ii) of this section, a statement of the reasons for not incorporating the item, including a comparison of the fuel savings, economic costs and lead-time requirements of that item and of the technology that was incorporated in the vehicle configuration.

(2) *Set 2 technology.* A description of the modifications that the petitioner would have made to each vehicle configuration specified in 40 CFR 600.506(a)(2)(iii) had the model year 1975 standards in all categories of Federal standards for which a Federal standards fuel economy reduction is sought been the only standards in those categories for the affected model year.

§ 527.7 Fuel economy of vehicle configurations and model types.

The petitioner shall submit a fuel economy value for each vehicle configuration specified in 40 CFR 600.506(a)(2)(iii) and for each model type of the petitioner's set 1 and set 2 passenger automobiles.

§ 527.8 Average fuel economy.

The petitioner shall submit the average fuel economy determined in accordance with § 527.12(c) of the petitioner's set 1 and set 2 passenger automobiles.

§ 527.9 Federal standards fuel economy reduction.

Federal standards fuel economy reductions shall be calculated as follows:

(a) *Subtract—*

(1) Set 1 fuel economy determined under § 527.8 from

(2) Set 2 fuel economy determined under § 527.8; and

(b) Subtract 0.5 miles per gallon from the result obtained under paragraph (a) of this section for each cate-

gory of Federal standards for which a Federal standards fuel economy reduction is sought.

§ 527.10 Projected production total and mix.

(a) The petitioner shall submit its projections, based on the average fuel economy standard for passenger automobiles as specified in the Act for the affected model year, of its total production and production mix of all model types of its passenger automobiles for the affected model year, and all vehicle configurations within each of those model types, and information demonstrating that those projections are reasonable. The information shall include information showing that those projections are consistent with the petitioner's mixes of passenger automobiles produced or expected to be produced in each model year from model year 1975 through the model year immediately preceding the affected model year, its passenger automobile production capacity for the affected model year, its efforts to comply with that average fuel economy standard, and the anticipated consumer demand for passenger automobiles during that model year.

§ 527.11 Production mix for determining Federal standards fuel economy reductions.

The production mix to be used for calculating Federal standards fuel economy reductions shall be the mix or mixes specified in paragraph (a), (b), or (c) of this section, as appropriate.

(a)(1) The production mix to be used shall be the mix projected under § 527.10 if either of the following conditions are met:

(i) The average fuel economy determined in accordance with § 527.12(c) of the petitioner's passenger automobiles for the affected model year, based upon the production mix projected under § 527.10, equals or exceeds the applicable average fuel economy standard; or

(ii) The average fuel economy based on the mix projected under § 527.10 of the petitioner's passenger automobiles to be produced in the affected model

year with the modifications that the petitioner would have made to them had the standards in one or more categories of Federal standards for model year 1975 been the only standards in that category or categories in effect during the affected model year equals or exceeds the applicable average fuel economy standard.

(2) If the condition in paragraph (a)(1)(i) of this section is not met but the condition in paragraph (a)(1)(ii) of this section is met, the petitioner shall provide the information specified in §§ 527.6 through 527.8 for the passenger automobiles described in paragraph (a)(1)(ii) of this section.

(b) If the average fuel economy of no mix of passenger automobiles for the affected model year as modified under § 527.11(a)(1)(ii) equals or exceeds the applicable average fuel economy standard, the production mix to be used shall be that mix with production total equal to that total projected under § 527.10 and with all vehicles being of the vehicle configuration with the highest fuel economy.

(c) The production mix to be used shall be that mix calculated under this paragraph if none of the criteria in paragraphs (a) or (b) of this section are met. For the purposes of adjusting the production mix pursuant to this paragraph, the following procedures shall be followed:

(1) Assume initially that the modified passenger automobiles specified in paragraph (a)(1)(ii) of this section are to be produced in the production total and mix projected under § 527.10.

(2) Keeping that total production constant, adjust that production mix as follows:

(i) For each model type of those modified passenger automobiles whose fuel economy is less than the average fuel economy standard for passenger automobiles for the affected model year, decrease the numbers of those modified passenger automobiles in that model type and in each vehicle configuration within that model type by 0.1 percent.

(ii) For each model type of those modified passenger automobiles whose fuel economy is equal to or greater than that standard, increase the numbers of those modified passenger auto-

mobiles in that model type and in each vehicle configuration within that model type by that percentage which, in conjunction with the decrease specified in paragraph (c)(2)(i) of this section, will keep the total production constant.

(3) Calculate the average fuel economy of the production mix as adjusted under paragraph (c)(2) of this section.

(4)(i) If the average fuel economy calculated under paragraph (c)(3) of this section equals or exceeds the applicable fuel economy standard, the mix as adjusted under paragraph (c)(2) of this section shall be used for calculating Federal standards fuel economy reductions.

(ii) If the average fuel economy calculated under paragraph (c)(3) of this section is less than the standard, adjust the projected production mix further by repeating the procedure in paragraphs (c) (2) and (3) of this section until the first production mix is reached whose average fuel economy equals or exceeds that standard.

[42 FR 58938, Nov. 14, 1977, as amended at 42 FR 64119, Dec. 22, 1977]

§ 527.12 Calculation of fuel economy values and average fuel economy.

For the purposes of this part, fuel economy values shall be determined as follows:

(a) *Determination of vehicle configuration fuel economy values.* (1) For each vehicle configuration for which a fuel economy value is required under 40 CFR 600.506(a)(2) (i) through (iii) and for which a fuel economy value has been determined and approved under 40 CFR Part 600, the petitioner shall submit that fuel economy value.

(2) For each vehicle configuration for which a fuel economy value is required under 40 CFR 600.506(a)(2)(iii) and for which an approved value does not exist, the petitioner shall submit a fuel economy value based on tests or analyses comparable to those prescribed or permitted under 40 CFR Part 600 and a description of the test procedures or analytical methods. Values based on actual tests conducted in accordance with procedures specified in Subpart B of 40 CFR Part 600, shall be entitled to greater probative

weight in NHTSA's evaluation of petitions than values based on analytical methods. Values to be used in the average fuel economy calculation in § 527.8 and based on methods other than such actual tests will be acceptable to NHTSA only if the petitioner demonstrates in its petition that—

(i) The petition contains all data previously approved by EPA and all relevant fuel economy test data from the petitioner's in-house testing program;

(ii) To the maximum extent practicable, all fuel economy testing required to be conducted under 40 CFR Part 600, has been scheduled so that as much testing as possible is completed prior to the submission of the petition; and

(iii) To the maximum extent practicable, testing required to be conducted under 40 CFR Part 600, has been scheduled so that those vehicle configurations with the largest projected sales are tested first.

(b) *Determination of model type fuel economy values.* For each model type, the petitioner shall submit a fuel economy value based on the values determined in accordance with paragraph (a) of this section and calculated in the same manner as model type fuel economy values are calculated for use under Subpart F of 40 CFR Part 600.

(c) *Determination of average fuel economy.* Average fuel economy shall be based upon fuel economy values calculated under paragraph (b) of this section for each model type and shall be calculated in accordance with 40 CFR 600.506, except that—

(1) The production mix determined under § 527.11 shall be used in place of projected sales; and

(2) Fuel economy values for running changes implemented and for vehicle configurations added are required only for those changes or additions made before the submission of the petitioner's petition. Data for subsequent running changes and added vehicle configurations must be included in reports submitted under § 527.13(c).

§ 527.13 Supplementary information requirements.

(a) The petitioner shall provide the NHTSA Administrator with any revisions

that it makes, after submitting its petition and before a final decision is rendered under § 527.14, to the production mix and total provided under § 527.10. The petitioner shall submit information demonstrating that the revisions are reasonable, including the information described in § 527.10.

(b) For each vehicle configuration of the petitioner's passenger automobiles to be produced in the affected model year for which a fuel economy value is generated by the petitioner's in-house testing program or approved by the EPA Administrator under 40 CFR 600.506-78 after the submission of the petition and before a final decision is rendered under § 527.14, the petitioner shall provide the NHTSA Administrator with that value and a revised fuel economy value for that vehicle configuration as modified under § 527.6(a)(2).

(c) All revisions required to be submitted under § 527.13 (a) or (b) shall be submitted within thirty days of their availability to the petitioner. The petitioner shall show the effect on the petition of all revisions submitted.

§ 527.14 Processing of petitions.

(a) On receipt of a petition, the petition is evaluated for completeness. If a petition is found not to contain the information required by this part, the petitioner is informed about the areas of insufficiency and advised that the petition will not receive further consideration until the necessary information is submitted.

(b) The NHTSA Administrator may request the petitioner to provide relevant information in addition to that required by this part: *Provided*, That such information either presently exists or can be obtained by the petitioner without undue hardship.

(c)(1) After the NHTSA Administrator concludes that a petition contains all the information required under this part, a notice of receipt of the petition is published in the FEDERAL REGISTER. The notice of receipt provides the following information:

- (i) That a petition has been received;
- (ii) The petitioner's identity;

(iii) The reduction requested and a brief summary of the petitioner's rationale therefor;

(iv) NHTSA's options for disposition of the petition;

(v) The criteria to be applied in evaluating the petition;

(vi) The location of copies of the petition available for public inspection; and

(vii) An invitation of comments from the public and a deadline for submission of those comments.

(2) At the same time the notice of receipt is published, a copy of the petition is sent to the Federal agency responsible for administering the category of standards for which the Federal standards fuel economy reduction is sought and the comments of that agency are invited.

(d) The NHTSA Administrator requests the EPA Administrator to provide him with fuel economy values as they are approved by the EPA for the petitioner's passenger automobiles to be produced in the affected model year. These values replace the corresponding unapproved values in all calculations of average fuel economies.

(e) After all comments are received and evaluated, the NHTSA Administrator publishes a proposed decision or set of reasonable alternative decisions in the *FEDERAL REGISTER*. The notice specifies the reasons for each alternative, solicits written comment on the proposal, and establishes a date and place for a public hearing.

(f) After the conclusion of the public comment period and hearing specified in paragraph (e) of this section, the NHTSA Administrator publishes a final decision in the *FEDERAL REGISTER*. The final decision is based upon the petition, written and oral comments, and other available information. The final decision sets forth the grant or denial of the petition in accordance with section 502(d)(2) of the Act and the reasons for the decision. To the extent practicable, a final decision will be rendered within 180 days of receipt of a complete petition.

(g) If fuel economy values approved by the EPA Administrator cannot be obtained by the NHTSA Administrator for most model types of the petitioner's passenger automobiles to be

produced in the affected model year, the NHTSA Administrator may rely on fuel economy values submitted pursuant to § 527.12(a)(2) and issue the notice described in paragraph (f) of this section as an interim determination. The notice, which is published in the *FEDERAL REGISTER*, contains the interim determination and the findings and analysis upon which such determination is based. The interim determination becomes final unless the NHTSA Administrator determines, after notice and opportunity for written and oral comment in accordance with this section, that significant disparities exist between the fuel economy values upon which the interim determination was based and fuel economy values subsequently approved by the EPA Administrator or submitted by the petitioner under § 527.13(b). Notice of the final determination with the adjusted reduction and of the reasons therefor is published in the *FEDERAL REGISTER*. For the purposes of this section, disparities between approved and unapproved data are deemed significant if, when all such disparities are taken together, the total average fuel economy calculated pursuant to § 527.8 would differ by 0.1 mile per gallon or more.

§ 527.15 Public hearing.

(a) Each hearing under § 527.14(e) is a legislative type hearing intended to provide interested persons with an opportunity to state their views or arguments, or to provide pertinent information concerning the proposed reduction.

(b)(1) The NHTSA Administrator appoints one or more employees of the Administration to serve on the hearing panel and designates one of those employees to be the presiding official. Other Federal employees may be invited to serve on the panel as well.

(2) The presiding official may:

(i) Limit the length of oral presentations;

(ii) Exclude irrelevant or redundant material; and

(iii) Direct that corroborative material be submitted in writing rather than presented orally.

(c) Any person desiring to make an oral statement at the hearing should file a notice of such intention and, if practicable, five copies of his proposed statement with the NHTSA Administrator at least ten days prior to the hearing.

(d) (1) The NHTSA Administrator requires representatives of the petitioner able to address all matters raised in the petition to attend the hearing.

(2) The NHTSA Administrator may, on his own motion or at the request of a hearing participant, require any person who submits written comments to the NHTSA Administrator on the proposed reduction before the hearing or who has relevant information necessary to an informed decision in the proceeding to attend the hearing at any time before its conclusion.

(3) The Administrator requires any person who, under paragraph (d)(1) or (2) of this section attends the hearing, to respond to questions posed to him under paragraph (e) of this section.

(4) All testimony at the hearing is made under oath.

(e) Any individual appointed under paragraph (b) of this section may, on his own initiative or at the request of any interested person attending the hearing, propound questions to—

(1) Any person subject to paragraph (d) of this section.

(2) Any person who makes an oral presentation at the hearing.

(f) Interested persons attending the hearing may submit to the panel written questions to be propounded to persons identified in paragraph (e) of this section. Questions for a witness other than those identified in paragraph (d)(1) of this section may not be submitted to the panel after the completion of testimony by that witness.

(g) A verbatim transcript of the proceeding is made and copies are available from the reporter at the expense of any person requesting them.

§ 527.16 Public inspection of information.

Any person may inspect available information relevant to a petition under this part, including the petition and any supporting data, memoranda of informal meetings with the petitioner or any other interested persons, the

transcript of the public hearing, and the notices regarding the petition, in the Docket Section of the Administration. Except as provided in § 527.15(g) regarding transcripts of the public hearings, any person may obtain copies of the information available for inspection under this paragraph in accordance with the regulations of the Office of the Secretary of Transportation (49 CFR Part 7).

PART 529—MANUFACTURERS OF MULTISTAGE AUTOMOBILES

Sec.

529.1 Scope and purpose.

529.2 Applicability.

529.3 Definitions.

529.4 Requirements for incomplete automobile manufacturers.

529.5 Requirements for intermediate manufacturers.

529.6 Requirements for final-stage manufacturers.

AUTHORITY: Sec. 301, Pub. L. 94-163, 80 Stat. 901 (15 U.S.C. 2001); delegation of authority at 41 FR 25015, June 22, 1976.

SOURCE: 42 FR 36372, July 26, 1977, unless otherwise noted.

§ 529.1 Scope and purpose.

This part determines, in cases where more than one person is the manufacturer of an automobile, which person is to be treated as the manufacturer for purposes of compliance with Title V of the Motor Vehicle Information and Cost Savings Act, as amended (15 U.S.C. 2001 et seq.) and rules issued thereunder.

§ 529.2 Applicability.

This part applies to incomplete automobile manufacturers, intermediate manufacturers, and final-stage manufacturers of automobiles that are manufactured in two or more stages.

§ 529.3 Definitions.

(a) *Statutory terms.* (1) The term "automobile" is used as defined in section 501 of the Act and in accordance with the determinations in 49 CFR Part 523.

(2) The terms "manufacture," "manufacturer," and "fuel economy" are used as defined in section 501 of the Act.

(b) *Other terms.* (1) "Act" means the Motor Vehicle Information and Cost Savings Act (Pub. L. 92-513), as amended by the Energy Policy and Conservation Act (Pub. L. 94-163).

(2) "Completed automobile" means an automobile that requires no further manufacturing operations to perform its intended function, other than the addition of readily attachable components, such as mirrors or tire and rim assemblies, or minor finishing operations such as painting.

(3) "Curb weight" is defined the same as "vehicle curb weight" in 40 CFR Part 86.

(4) "Final-stage manufacturer" means a person who performs such manufacturing operations on an incomplete automobile that it becomes a completed automobile.

(5) "Frontal area" is used as defined in 40 CFR 86.079-2.

(6) "Incomplete automobile" means an assembly consisting, as a minimum, of frame and chassis structure, power train, steering system, suspension system, and braking system to the extent that those systems are to be part of the completed automobile, that requires further manufacturing operations, other than the addition of readily attachable components, such as mirrors or tire and rim assemblies, or minor finishing operations such as painting, to become a completed automobile.

(7) "Incomplete automobile manufacturer" means a person who manufactures an incomplete automobile by assembling components none of which, taken separately, constitute a complete automobile.

(8) "Intermediate manufacturer" means a person, other than the incomplete automobile manufacturer or the final-stage manufacturer, who performs manufacturing operations on an incomplete automobile.

[42 FR 38372, July 28, 1977, as amended at 42 FR 39983, Aug. 8, 1977]

§ 529.4 Requirements for incomplete automobile manufacturers.

(a) Except as provided in paragraph (c) of this section, §§ 529.5 and 529.6, each incomplete automobile manufacturer is considered, with respect to multistage automobiles incorporating

its incomplete automobiles, the manufacturer of the multistage automobiles for purposes of the requirements of Title V and rules issued thereunder.

(b) Each incomplete automobile manufacturer shall furnish with each of its incomplete automobiles, when it is delivered to the subsequent manufacturer, (1) a document that contains the following information—

(i) Name and mailing address of the incomplete automobile manufacturer.

(ii) Month and year during which the incomplete automobile manufacturer performed its last manufacturing operation on the incomplete automobile.

(iii) Identification of the incomplete automobile or group of incomplete automobiles to which the document applies. The identification may be by serial number or otherwise, but it must be sufficient to enable a subsequent manufacturer to ascertain positively that the document applies to a particular incomplete automobile even if the document is not attached to that automobile.

(iv) Fuel economy values determined by the incomplete automobile manufacturer for the automobile in accordance with 40 CFR Part 600 and a statement that a fuel economy label containing those values has been prepared in accordance with Environmental Protection Agency regulation by the manufacturer identified in the document.

(v) Maximum curb weight that may not be exceeded by a subsequent manufacturer without invalidating the fuel economy values determined by the incomplete automobile manufacturer.

(vi) Maximum frontal area that may not be exceeded by a subsequent manufacturer without invalidating the fuel economy values determined by the incomplete automobile manufacturer.

(vii) Whether the fuel economy values have been computed with the road load horsepower set to take into account the presence of air conditioning.

(2) A fuel economy label conforming with 40 CFR Part 600.

(c) (1) The incomplete automobile manufacturer shall either attach the

document specified in paragraph (b)(1) of this section to the incomplete automobile in such a manner that it will not be inadvertently detached or send that document directly to the subsequent manufacturer to which that automobile is delivered.

(2) (i) If the incomplete automobile manufacturer places the portion of the body including the windshield and front seat side windows on the incomplete automobile, that manufacturer shall attach the fuel economy label specified in paragraph (b)(2) of this section to that automobile in accordance with 40 CFR Part 600. If the incomplete automobile manufacturer does not place that portion of the body on the incomplete automobile, that manufacturer shall send that label directly to the subsequent manufacturer to which that automobile is delivered.

(ii) Upon request by an intermediate or final-stage manufacturer for a copy of a fuel economy label that is required by paragraph (b)(2) of this section to have been prepared by the incomplete automobile manufacturer for one of its incomplete automobiles, identified by the requesting manufacturer in the same fashion as in the document specified in paragraph (b)(1) of this section, the incomplete automobile manufacturer shall send that manufacturer a copy of the label.

§ 529.5 Requirements for intermediate manufacturers.

(a) Except as provided in paragraph (d) of this section and in § 529.6, each intermediate manufacturer whose manufacturing operations on an incomplete automobile cause it to exceed the maximum curb weight or maximum frontal area set forth in the document furnished it by the incomplete automobile manufacturer under § 529.4(c)(1) or by a previous intermediate manufacturer under paragraph (b) of this section, as appropriate, is considered the manufacturer of the multistage automobile manufactured from that automobile for the purpose of the requirements of Title V and rules issued thereunder, other than that in Part 537, Fuel Economy Reports.

(b) Each intermediate manufacturer of an incomplete automobile shall furnish, in the manner specified in § 529.4(c), to the subsequent manufacturer of that automobile the document required by § 529.4(b) regarding that automobile. If any of the changes in the automobile made by the intermediate manufacturer affect the validity of the fuel economy values or other statement in the document or any addendum attached to the document by a previous manufacturer of the automobile, the intermediate manufacturer shall furnish an addendum to the document that contains its name and mailing address and an indication of all changes that should be made in the document to reflect changes that it made in the automobile.

(c) Each intermediate manufacturer that is required by paragraph (b) of this section to furnish an addendum to a document required by § 529.4(b) shall, within 10 days after completing its manufacturing operations, send a copy of the document and addendum to the Administrator of the Environmental Protection Agency and to the manufacturer previously considered under this part to be the manufacturer of the automobile.

(d)(1) If the intermediate manufacturer's manufacturing operations on an incomplete automobile cause it to exceed the maximum curb weight or maximum frontal area set forth in the document furnished it by the incomplete automobile manufacturer under § 529.4(c)(1) or a previous intermediate manufacturer under paragraph (b) of this section, as appropriate, that manufacturer shall prepare a new fuel economy label for that automobile in accordance with 40 CFR Part 600.

(2) If neither the intermediate manufacturer of an incomplete automobile nor any previous manufacturer of that automobile has placed the portion of the body including the windshield and front seat side windows on that automobile, the intermediate manufacturer shall send the fuel economy label furnished it by the incomplete automobile manufacturer under § 529.4(c)(2)(i) or a previous intermediate manufacturer under paragraph (d)(2) of this section or prepared by it under paragraph (d)(1) of this section,

as appropriate, directly to the subsequent manufacturer to which that automobile is delivered.

(3) If the intermediate manufacturer places the portion of the body including the windshield and front seat side windows on the incomplete automobile, that manufacturer shall attach the fuel economy label furnished it under § 529.4(c)(1) or paragraph (d)(2) of this section or the fuel economy label prepared by it under paragraph (d)(1) of this section, as appropriate, to that automobile in accordance with 40 CFR Part 600.

(4) The intermediate manufacturer shall attach to the incomplete automobile in accordance with 40 CFR Part 600 a fuel economy label identical to the label that is required under this part to have been prepared by the manufacturer considered under this part to be the manufacturer of that automobile if:

(i) The portion of the body including the windshield and front seat side windows was added to the incomplete automobile by a previous manufacturer;

(ii) The intermediate manufacturer's manufacturing operations do not cause that automobile to exceed either of the maxima specified in paragraph (d)(1) of this section; and

(iii) That label is not on that automobile when received by the intermediate manufacturer or is removed from that automobile while it is in the possession of that manufacturer.

(5) Upon request by a subsequent intermediate manufacturer or by a final-stage manufacturer for a copy of a fuel economy label prepared by the intermediate manufacturer under paragraph (d)(1) of this section for one of its incomplete automobiles, identified by the requesting manufacturer in the same fashion as in the document specified in § 529.4(b)(1), the intermediate manufacturer shall send that manufacturer a copy of that label.

§ 529.6 Requirements for final-stage manufacturers.

(a) Except as provided in paragraph (c) of this section, each final-stage manufacturer whose manufacturing operations on an incomplete automobile cause the completed automobile

to exceed the maximum curb weight or maximum frontal area set forth in the document specified in § 529.4(b) and furnished it by the incomplete automobile manufacturer under § 529.4(c)(1) or by the last intermediate manufacturer under § 529.5(b), as appropriate, is considered the manufacturer of the completed automobile for the purpose of the requirements of Title V and rules issued thereunder, other than those in Part 537, Fuel Economy Reports.

(b) Each final-stage manufacturer that becomes the manufacturer of a multistage automobile under paragraph (a) of this section shall, within 16 days after completing its manufacturing operations on that automobile, send written notification of its exceeding the curb weight or frontal area maximum to the Administrator of the Environmental Protection Agency and to the manufacturer previously considered under this part to be the manufacturer of the automobile.

(c)(1) If the final-stage manufacturer becomes the manufacturer of a multistage automobile under paragraph (a)(1) of this section, that manufacturer shall prepare a new fuel economy label for that automobile in accordance with 40 CFR Part 600.

(2) If the final-stage manufacturer places the portion of the body including the windshield and front seat side windows on the incomplete automobile, that manufacturer shall attach the fuel economy label furnished by the incomplete automobile manufacturer under § 529.4(c)(2) or by the last intermediate manufacturer under § 529.5(d)(2) or the fuel economy label prepared by the final-stage manufacturer under paragraph (c)(1) of this section, as appropriate, to that automobile in accordance with 40 CFR Part 600.

(3) The final-stage manufacturer shall attach to the completed automobile in accordance with 40 CFR Part 600 a fuel economy label identical to the label that is required under this part to have been prepared by the manufacturer considered under this part to be the manufacturer of that automobile if:

(i) The portion of the body including the windshield and front seat side win-

dows was added to the completed automobile by a previous manufacturer;

(ii) The final-stage manufacturer's manufacturing operations do not cause that automobile to exceed either of the maxima specified in paragraph (c)(1) of this section; and

(iii) That fuel economy label is not on that automobile when received by that manufacturer or is removed from that automobile while it is in the possession of that manufacturer.

PART 531—PASSENGER AUTOMOBILE AVERAGE FUEL ECONOMY STANDARDS

Sec.

531.1 Scope.

531.2 Purpose.

531.3 Applicability.

531.4 Definitions.

531.5 Fuel economy standards.

531.6 Measurement and calculation procedures.

AUTHORITY: 15 U.S.C. 2062; delegation of authority at 49 CFR 1.50.

SOURCE: 43 FR 33552, June 30, 1977, unless otherwise noted.

NOTE: These standards will apply to the model years 1981 through 1984.

§ 531.1 Scope.

This part establishes average fuel economy standards pursuant to section 502 (a) and (c) of the Motor Vehicle Information and Cost Savings Act, as amended, for passenger automobiles.

(43 FR 36304, June 29, 1978)

§ 531.2 Purpose.

The purpose of this part is to increase the fuel economy of passenger automobiles by establishing minimum levels of average fuel economy for those vehicles.

§ 531.3 Applicability.

This part applies to manufacturers of passenger automobiles.

§ 531.4 Definitions.

(a) **Statutory terms.** (1) The terms "average fuel economy," "manufacturer," "manufacturer," and "model year" are used as defined in section 501 of the Act.

(2) The terms "automobile" and "passenger automobile" are used as defined in section 501 of the Act and in accordance with the determination in Part 523 of this chapter.

(b) **Other terms.** As used in this part, unless otherwise required by the context—

(1) "Act" means the Motor Vehicle Information and Cost Savings Act, as amended by Pub. L. 94-163.

§ 531.5 Fuel economy standards.

(a) Except as provided in paragraph (b) of this section, each manufacturer of passenger automobiles shall comply with the following standards in the model year specified:

Model year	Average fuel economy standard (miles per gallon)
1976	18.0
1979	19.0
1980	20.0
1981	22.0
1982	24.0
1983	26.0
1984	27.0
1985 and thereafter	27.5

(b) The following manufacturers shall comply with the standards indicated below for the specified model years:

(1) Avanti Motor Corporation.

AVERAGE FUEL ECONOMY STANDARD

Model year	Miles per gallon
1976	16.1
1979	14.5
1980	15.8
1981	18.2
1982	18.2
1983	16.9
1984	16.9
1985	16.9

(2) Rolls-Royce Motors, Inc.

AVERAGE FUEL ECONOMY STANDARD

Model year	Miles per gallon
1976	10.7
1979	10.8

**AVERAGE FUEL ECONOMY STANDARD—
Continued**

Model year	Miles per gallon
1980.....	11.1
1981.....	10.7
1982.....	10.6
1983.....	9.9
1984.....	10.0
1985.....	10.0
1986.....	11.0

(3) Checker Motors Corporation.

AVERAGE FUEL ECONOMY STANDARD

Model year	Miles per gallon
1978.....	17.6
1979.....	18.5
1980.....	18.5
1981.....	18.3
1982.....	18.4

(4) Aston Martin Lagonda, Inc.

AVERAGE FUEL ECONOMY STANDARD

Model year	Miles per gallon
1979.....	11.5
1980.....	12.1
1981.....	12.2
1982.....	12.2
1983.....	11.3
1984.....	11.3
1985.....	11.4

(5) Excalibur Automobile Corporation.

AVERAGE FUEL ECONOMY STANDARD

Model year	Miles per gallon
1978.....	11.5
1979.....	11.5
1980.....	16.2
1981.....	17.9
1982.....	17.9
1983.....	16.6
1984.....	16.6
1985.....	16.6

(6) [Reserved]

(7) Officine Alfieri Maserati, S.p.A.

Model year	Average fuel economy standard (miles per gallon)
1978.....	12.5
1979.....	12.5
1980.....	9.5

[43 FR 28204, June 29, 1978, as amended at 46 FR 18721, Mar. 26, 1981; 47 FR 55685, Dec. 13, 1982; 50 FR 32425, Aug. 12, 1985]

§ 531.6 Measurement and calculation procedures.

(a) The average fuel economy of all passenger automobiles that are manufactured by a manufacturer in a model year shall be determined in accordance with procedures established by the Administrator of the Environmental Protection Agency under section 502(a)(1) of the Act and set forth in 40 CFR Part 600.

**PART 533—LIGHT TRUCK FUEL
ECONOMY STANDARDS**

Sec.

533.1 Scope.

533.2 Purpose.

533.3 Applicability.

533.4 Definitions.

533.5 Requirements.

533.6 Measurement and calculation procedures.

Authority: Sec. 9, Pub. L. 89-670, 80 Stat. 931 (40 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976.

§ 533.1 Scope.

This part establishes average fuel economy standards pursuant to section 502(b) of the Motor Vehicle Information and Cost Savings Act, as amended, for light trucks.

[42 FR 13807, Mar. 14, 1977, as amended at 43 FR 12013, Mar. 23, 1978]

§ 533.2 Purpose.

The purpose of this part is to increase the fuel economy of light trucks by establishing minimum levels of average fuel economy for those vehicles.

[42 FR 13807, Mar. 14, 1977, as amended at 43 FR 12013, Mar. 23, 1978]

§ 533.3 Applicability.

This part applies to manufacturers of light trucks.

[42 FR 13807, Mar. 14, 1977, as amended at 43 FR 12013, Mar. 23, 1978]

§ 533.4 Definitions.

(a) *Statutory terms.* (1) The terms "average fuel economy," "average fuel economy standard," "fuel economy," "import," "manufacture," "manufacturer," and "model year" are used as defined in section 501 of the Act.

(2) The term "automobile" is used as defined in section 501 of the Act and in accordance with the determinations in Part 823 of this chapter.

(3) The term "domestically manufactured" is used as defined in section 803(b)(3)(E) of the Act.

(b) *Other terms.* As used in this part, unless otherwise required by the context—

(1) "Act" means the Motor Vehicle Information Cost Savings Act, as amended by Pub. L. 94-163.

(2) "Light truck" is used in accordance with the determinations in Part 823 of this chapter.

"Captive import" means with respect to a light truck, one which is not domestically manufactured but which is imported in the 1980 model year or thereafter by a manufacturer whose principal place of business is in the United States.

"4-wheel drive, general utility vehicle" means a 4-wheel drive, general

purpose automobile capable of off-highway operation that has a wheelbase of not more than 110 inches, and that has a body shape similar to 1977 Jeep CJ-5 or CJ-7, or the 1977 Toyota Land Cruiser.

"Basic engine" means a unique combination of manufacturer, engine displacement, number of cylinders, fuel system (as distinguished by number of carburetor barrels or use of fuel injection), and catalyst usage.

"Limited product line light truck" means a light truck manufactured by a manufacturer whose light truck fleet is powered exclusively by basic engines which are not also used in passenger automobiles.

[42 FR 13807, Mar. 14, 1977, as amended at 43 FR 12013, Mar. 23, 1978; 43 FR 46547, Oct. 10, 1978]

§ 533.5 Requirements.

(a) Each manufacturer of light trucks shall comply with the following average fuel economy standards, expressed in miles per gallon, in the model year specified as applicable:

TABLE I

Model year	2-wheel drive light trucks		4-wheel drive light trucks		Limited product line light trucks
	Captive imports	Other	Captive imports	Other	
1979.....		17.2		15.8	
1980.....	18.0	18.0	14.0	14.0	14.0
1981.....	18.7	18.7	15.0	15.0	14.5

TABLE II

Model Year	Combined standard		2-wheel drive light trucks		4-wheel drive light trucks	
	Captive imports	Other imports	Captive imports	Other imports	Captive	Other imports
1982.....	17.5	17.5	18.0	18.0	16.0	16.0
1983.....	18.0	18.0	18.5	18.5	17.5	17.5
1984.....	20.0	20.0	20.3	20.3	18.5	18.5
1985.....	19.5	19.5	19.7	19.7	18.9	18.9
1986.....	20.0	20.0	20.5	20.5	19.5	19.5

(b)(1) For model year 1979, each manufacturer may:

(i) Combine its 2- and 4-wheel drive light trucks and comply with the aver-

age fuel economy standard in paragraph (a) of this section for 2-wheel drive light trucks; or

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(1) Comply separately with the two standards specified in paragraph (a) of this section.

(2) For model year 1979, the standard specified in paragraph (a) of this section for 4-wheel drive light trucks applies only to 4-wheel drive general utility vehicles. All other 4-wheel drive light trucks in that model year shall be included in the 2-wheel drive category for compliance purposes.

(c) For model years 1980 and 1981, manufacturers of limited product line light trucks may:

(1) Comply with the separate standard for limited product line light trucks, or

(2) Comply with the other standards specified in § 533.5(a), as applicable.

(d) For model years 1982-85, each manufacturer may:

(1) Combine its 2- and 4-wheel drive light trucks (segregating captive import and other light trucks) and comply with the combined average fuel economy standard specified in paragraph (a) of this section; or

(2) Comply separately with the 2-wheel drive standards and the 4-wheel drive standards (segregating captive import and other light trucks) specified in paragraph (a) of this section.

(Sec. 9, Pub. L. 89-670, 80 Stat. 931 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. 901 (15 U.S.C. 2002); delegations of authority at 49 CFR 1.50 and 49 CFR 501.8)

[43 FR 12014, Mar. 23, 1978, as amended at 45 FR 20678, Mar. 31, 1980; 45 FR 81090, Dec. 11, 1980; 47 FR 7250, Feb. 8, 1982; 47 FR 35721, July 29, 1982; 49 FR 41256, Oct. 22, 1984]

§ 533.6 Measurement and calculation procedures.

(a) Any reference to a class of light trucks manufactured by a manufacturer shall be deemed—

(1) To include all light trucks in that class manufactured by persons who control, are controlled by, or are under common control with, such manufacturer; and

(2) To exclude all light trucks in that class manufactured (within the meaning of paragraph (a)(1) of this section) during a model year by such manufacturer which are exported prior to the expiration of 30 days following the end of such model year.

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(b) The average fuel economy of all nonpassenger automobiles that are manufactured by a manufacturer and are subject to § 533.5(b) or to § 533.5(c) shall be determined in accordance with procedures established by the Administrator of the Environmental Protection Agency under section 503(a)(2) of the Act.

[42 FR 13807, Mar. 14, 1977, as amended at 43 FR 12013, Mar. 23, 1978]

PART 535—3-YEAR CARRYFORWARD AND CARRYBACK OF CREDITS FOR LIGHT TRUCKS

Sec.

535.1 Scope.

535.2 Applicability.

535.3 Definitions.

535.4 3-year carryforward and carryback of credits.

Authority: Sec. 9, Pub. L. 89-670, 80 Stat. 931 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. 901 (15 U.S.C. 2001); sec. 6, Pub. L. 96-425, 94 Stat. 1821 (15 U.S.C. 2002); delegation of authority at 49 CFR 1.50.

Source: 45 FR 83235, Dec. 19, 1980, unless otherwise noted.

§ 535.1 Scope.

This part establishes regulations governing 3-year carryforward and carryback of credits for manufacturers of light trucks.

§ 535.2 Applicability.

This part applies to manufacturers of light trucks.

§ 535.3 Definitions.

(a) *Statutory terms.* The terms "average fuel economy," "average fuel economy standard," "fuel economy," "manufacture," "manufacturer," and "model year" are used as defined in section 501 of the Act.

(b) *Other terms.* (1) "Act" means the Motor Vehicle Information and Cost Savings Act, as amended by Pub. L. 94-163 and 96-425.

(2) "Administrator" means the Administrator of the National Highway Traffic Safety Administration.

(3) The term "light truck" is used in accordance with the determinations in Parts 523 and 533 of this chapter.

(4) The term "class of light trucks" is used in accordance with the determinations in Part 533 of this chapter.

§ 535.4 3-year carryforward and carryback of credits

(a) For purposes of this part, credits under this section shall be considered to be available to any manufacturer upon the completion of the model year in which such credits are earned under paragraph (b) of this section unless under paragraph (c) of this section the credits are made available for use at a time prior to the model year in which earned.

(b) Whenever the average fuel economy for a class of light trucks manufactured by a manufacturer in a particular model year exceeds an applicable average fuel economy standard established in Part 533 of this chapter, such manufacturer shall be entitled to credit, calculated under paragraph (c) of this section, which—

(1) Shall be available to be taken into account with respect to the average fuel economy for the same class of light trucks of that manufacturer for any of the three consecutive model years immediately prior to the model year in which such manufacturer exceeds such applicable average fuel economy standard, and

(2) To the extent that such credit is not so taken into account pursuant to paragraph (b)(1) of this section, shall be available to be taken into account with respect to the average fuel economy for the same class of light trucks of that manufacturer for any of the three consecutive model years immediately following the model year in which such manufacturer exceeds such applicable average fuel economy standard.

(c) (1) At any time prior to the end of any model year, a manufacturer which has reason to believe that its average fuel economy for a class of light trucks will be below such applicable standard for that model year may submit a plan demonstrating that such manufacturer will earn sufficient credits under paragraph (b) of this section within the next 3 model years which when taken into account would allow the manufacturer to meet that standard for the model year involved.

(2) Such credits shall be available for the model year involved subject to—

(i) The Administrator approving such plan; and

(ii) The manufacturer earning credits in accordance with such plan.

(3) The Administrator approves any such plan unless the Administrator finds that it is unlikely that the plan will result in the manufacturer earning sufficient credits to allow the manufacturer to meet the standard for the model year involved.

(4) The Administrator provides notice to any manufacturer in any case in which the average fuel economy of that manufacturer is below the applicable standard under Part 533 of this chapter, after taking into account credits available under paragraph (b)(1) of this section, and affords the manufacturer a reasonable period (of not less than 60 days) in which to submit a plan under this paragraph.

(d) The amount of credit to which a manufacturer is entitled under this section shall be equal to—

(1) The number of tenths of a mile per gallon by which the average fuel economy for a class of light trucks manufactured by such manufacturer in the model year in which the credit is earned pursuant to this section exceeds the applicable average fuel economy standard established in Part 533 of this chapter, multiplied by

(2) The total number of light trucks in that class manufactured by such manufacturer during such model year.

(e) The Administrator takes credits into account for any model year on the basis of the number of tenths of a mile per gallon by which the manufacturer involved was below an applicable average fuel economy standard for a class of light trucks for that model year and the volume of that class of light trucks manufactured that model year by the manufacturer. Credits may not be applied between class of light trucks, except as determined by the Administrator to account for changes made in the definitions of classes between model years. Credits once taken into account for any model year shall not thereafter be available for any other model year. Prior to taking any credit into account, the Ad-

ministrator provides the manufacturer involved with written notice and reasonable opportunity to comment thereon.

PART 537—AUTOMOTIVE FUEL ECONOMY REPORTS

Sec.

- 537.1 Scope.
- 537.2 Purpose.
- 537.3 Applicability.
- 537.4 Definitions.
- 537.5 General requirements for reports.
- 537.6 General content of reports.
- 537.7 Pre-model year and mid-model year reports.
- 537.8 Supplementary reports.
- 537.9 Determination of fuel economy values and average fuel economy.
- 537.10 Incorporation by reference.
- 537.11 Public inspection of information.
- 537.12 Confidential information.

AUTHORITY: Sec. 9, Pub. L. 89-670, 80 Stat. 931 (49 U.S.C. 1657); sec. 301, Pub. L. 94-163, 80 Stat. 901 (15 U.S.C. 2005); delegation of authority at 41 FR 25015, June 23, 1976.

SOURCE: 47 FR 34986, Aug. 12, 1982, unless otherwise noted.

§ 537.1 Scope.

This part establishes requirements for automobile manufacturers to submit reports to the National Highway Traffic Safety Administration regarding their efforts to improve automotive fuel economy.

§ 537.2 Purpose.

The purpose of this part is to obtain information to aid the National Highway Traffic Safety Administration in valuating automobile manufacturers' plans for complying with average fuel economy standards and in preparing an annual review of the average fuel economy standards.

§ 537.3 Applicability.

This part applies to automobile manufacturers, except for manufacturers subject to an alternate fuel economy standard under section 502(c) of the Act.

§ 537.4 Definitions.

(a) *Statutory terms.* (1) The terms "average fuel economy standard," "fuel," "manufacture," and "model

year" are used as defined in section 501 of the Act.

(2) The term "manufacturer" is used as defined in section 501 of the Act and in accordance with Part 529 of this chapter.

(3) The terms "average fuel economy," "fuel economy," and "model type" are used as defined in Subpart A of 40 CFR Part 600.

(4) The terms "automobile," "automobile capable of off-highway operation," and "passenger automobile" are used as defined in section 501 of the Act and in accordance with the determinations in Part 523 of this chapter.

(b) *Other terms.* (1) The term "loaded vehicle weight" is used as defined in Subpart A of 40 CFR Part 86.

(2) The terms "axle ratio," "base level," "body style," "car line," "combined fuel economy," "engine code," "equivalent test weight," "gross vehicle weight," "inertia weight," "transmission class," and "vehicle configuration" are used as defined in Subpart A of 40 CFR Part 600.

(3) The term "light truck" is used as defined in Part 523 of this chapter and in accordance with determinations in that part.

(4) The terms "approach angle," "axle clearance," "brakeover angle," "cargo carrying volume," "departure angle," "passenger carrying volume," "running clearance," and "temporary living quarters" are used as defined in Part 523 of this chapter.

(5) The term "incomplete automobile manufacturer" is used as defined in Part 529 of this chapter.

(6) As used in this part, unless otherwise required by the context:

(i) "Act" means the Motor Vehicle Information and Cost Savings Act (Pub. L. 92-513), as amended by the Energy Policy and Conservation Act (Pub. L. 94-163).

(ii) "Administrator" means the Administrator of the National Highway Traffic Safety Administration or the Administrator's delegate.

(iii) "Current model year" means:

(A) In the case of a pre-model year report, the full model year immediately following the period during which that report is required by § 537.5(b) to be submitted.

(B) In the case of a mid-model year report, the model year during which that report is required by § 537.5(b) to be submitted.

(iv) "Average" means a production-weighted harmonic average.

(v) "Total drive ratio" means the ratio of an automobile's engine rotational speed (in revolutions per minute) to the automobile's forward speed (in miles per hour).

§ 537.5 General requirements for reports.

(a) For each current model year, each manufacturer shall submit a pre-model year report, a mid-model year report, and, as required by § 537.8, supplementary reports.

(b)(1) The pre-model year report required by this part for each current model year must be submitted during the month of December (e.g., the pre-model year report for the 1983 model year must be submitted during December, 1982).

(2) The mid-model year report required by this part for each current model year must be submitted during the month of July (e.g., the mid-model year report for the 1983 model year must be submitted during July 1983).

(3) Each supplementary report must be submitted in accordance with § 537.8(c).

(c) Each report required by this part must:

(1) Identify the report as a pre-model year report, mid-model year report, or supplementary report as appropriate;

(2) Identify the manufacturer submitting the report;

(3) State the full name, title, and address of the official responsible for preparing the report;

(4) Be submitted in 10 copies to: Administrator, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590;

(5) Identify the current model year;

(6) Be written in the English language; and

(7)(i) Specify any part of the information or data in the report that the manufacturer believes should be withheld from public disclosure as trade secret or other confidential business information.

(ii) With respect to each item of information or data requested by the manufacturer to be withheld under 5 U.S.C. 552(b)(4) and 15 U.S.C. 2005(d)(1), the manufacturer shall:

(A) Show that the item is within the scope of sections 552(b)(4) and 2005(d)(1);

(B) Show that disclosure of the item would result in significant competitive damage;

(C) Specify the period during which the item must be withheld to avoid that damage; and

(D) Show that earlier disclosure would result in that damage.

(d) Each report required by this part must be based upon all information and data available to the manufacturer 30 days before the report is submitted to the Administrator.

§ 537.6 General content of reports.

(a) *Pre-model year and mid-model year reports.* Except as provided in paragraph (c) of this section, each pre-model year report and the mid-model year report for each model year must contain the information required by § 537.7(a).

(b) *Supplementary report.* Each supplementary report must contain the information required by § 537.8(b) (1), (2), or (3), as appropriate.

(c) *Exceptions.* (1) The pre-model year report is not required to contain the information specified in § 537.7 (b), (c) (1) and (2), or (c)(4) (xiv) and (xx) if that report is required to be submitted before the fifth day after the date by which the manufacturer must submit the preliminary determination of its average fuel economy for the current model year to the Environmental Protection Agency under 40 CFR 600.506, when such determination is required. Each manufacturer that does not include information under the exception in the immediately preceding sentence shall indicate in its report the date by which it must submit that preliminary determination.

(2) The pre-model year report and the mid-model year report submitted by an incomplete automobile manufacturer for any model year are not required to contain the information

specified in § 537.7 (c)(4) (xv) through (xviii) and (c)(5). The information provided by the incomplete automobile manufacturer under § 537.7(c) shall be according to base level instead of model type or carline.

§ 537.7 Pre-model year and mid-model year reports.

(a)(1) Provide the information required by paragraphs (b) and (c) of this section for the manufacturer's passenger automobiles for the current model year.

(2) After providing the information required by paragraph (a)(1) of this section provide the information required by paragraphs (b) and (c) for this section of each class, as specified in Part 533 of this chapter, of the manufacturer's light trucks for the current model year.

(b) Projected average fuel economy.

(1) State the projected average fuel economy for the manufacturer's automobiles determined in accordance with § 537.9 and based upon the fuel economy values and projected sales figures provided under paragraph (c)(2) of this section.

(2) State the projected final average fuel economy that the manufacturer anticipates having if changes implemented during the model year will cause that average to be different from the average fuel economy projected under paragraph (b)(1) of this section.

(3) State whether the manufacturer believes that the projection it provides under paragraph (b)(2) of this section, or if it does not provide an average under that paragraph, the projection it provides under paragraph (b)(1) of this section sufficiently represents the manufacturer's average fuel economy for the current model year for the purposes of the Act. In the case of a manufacturer that believes that the projection is not sufficiently representative for those purposes, state the specific nature of any reason for the insufficiency and the specific additional testing or derivation of fuel economy values by analytical methods believed by the manufacturer necessary to eliminate the insufficiency and any plans of the manufacturer to undertake that testing or derivation voluntarily

and submit the resulting data to the Environmental Protection Agency under 40 CFR 600.509.

(c) *Model type and configuration fuel economy and technical information.* (1) For each model type of the manufacturer's automobiles, provide the information specified in paragraph (c)(2) of this section in tabular form. List the model types in order of increasing average inertia weight from top to bottom down the left side of the table and list the information categories in the order specified in paragraph (c)(2) of this section from left to right across the top of the table.

(2)(i) Combined fuel economy; and

(ii) Projected sales for the current model year and total sales of all model types.

(3) *(Pre-model year report only.)* For each vehicle configuration whose fuel economy was used to calculate the fuel economy values for a model type under paragraph (c)(2) of this section, provide the information specified in paragraph (c)(4) of this section either in tabular form or as a fixed format computer tape. If a tabular form is used then list the vehicle configurations, by model type in the order listed under paragraph (c)(2) of this section, from top to bottom down the left of the table and list the information categories across the top of the table from left to right in the order specified in paragraph (c)(4) of this section. Other formats (such as copies of EPA reports) which contain all the required information in a readily identifiable form are also acceptable. If a computer tape is used, any NHTSA approved fixed format structure may be used, but each vehicle configuration record should identify the manufacturer, model type, and for light trucks the drive wheel code, e.g., 2 or 4 wheel drive. At least the information categories specified here and in paragraph (c)(4) must be provided, but if preferred the tape may contain any additional categories. Each computer tape record must contain all the required categories of information to enable direct reading and interpretation in the fixed format that was approved. There should be no titles, column headings, page numbers, or attachment numbers on the tape. It must be

possible to directly calculate and produce the tables specified in paragraph (c)(1) from the records on this tape.

(4)(i) Loaded vehicle weight;
(ii) Equivalent test weight;
(iii) Cubic inch (or liters) displacement of engine;
(iv) Number of engine cylinders;
(v) SAE net horsepower;
(vi) Engine code;
(vii) Fuel system (number of carburetor barrels or, if fuel injection is used, so indicate);

(viii) Emission control system;
(ix) Transmission class;
(x) Number of forward speeds;
(xi) Existence of overdrive (indicate yes or no);

(xii) Total drive ratio (N/V);
(xiii) Axle ratio;
(xiv) Combined fuel economy;
(xv) Projected sales for the current model year;

(xvi) (A) In the case of passenger automobiles:

(1) Interior volume index, determined in accordance with Subpart D of 40 CFR Part 600, and

(2) Body style;

(B) In the case of light trucks:

(1) Passenger-carrying volume, and

(2) Cargo-carrying volume;

(xvii) Performance of the function described in § 523.5(a)(5) of this chapter (indicate yes or no);

(xviii) Existence of temporary living quarters (indicate yes or no);

(xix) Frontal area;

(xx) Road load power at 50 miles per hour, if determined by the manufacturer for purposes other than compliance with this part to differ from the road load setting prescribed in 40 CFR 86.177-11(d);

(xxi) Optional equipment which the manufacturer is required under 40 CFR Parts 86 and 600 to have actually installed on the vehicle configuration, or the weight of which must be included in the curb weight computation for the vehicle configuration, for fuel economy testing purposes.

(5) For each model type of automobile which is classified as an automobile capable of off-highway operation under Part 523 of this chapter, provide the following data:

(i) Approach angle;

(ii) Departure angle;

(iii) Breakover angle;

(iv) Axle clearance;

(v) Minimum running clearance; and

(vi) Existence of 4-wheel drive (indicate yes or no).

(6) The fuel economy values provided under paragraphs (c) (2) and (4) of this section shall be determined in accordance with § 537.9.

§ 537.8 Supplementary reports.

(a)(1) Except as provided in paragraph (d) of this section, each manufacturer whose most recently submitted semiannual report contained an average fuel economy projection under § 537.7(b)(2) or, if no average fuel economy was projected under that section, under § 537.7(b)(1), that was not less than the applicable average fuel economy standard and who now projects an average fuel economy which is less than the applicable standard shall file a supplementary report containing the information specified in paragraph (b)(1) of this section.

(2) Except as provided in paragraph (d) of this section, each manufacturer that determines that its average fuel economy for the current model year as projected under § 537.7(b)(2) or, if no average fuel economy was projected under that section, as projected under § 537.7(b)(1), is less representative than the manufacturer previously reported it to be under § 537.7(b)(3), this section, or both, shall file a supplementary report containing the information specified in paragraph (b)(2) of this section.

(3) Each manufacturer whose pre-model year report omits any of the information specified in § 537.7 (b), (c) (1) and (2), or (c)(4) (xvi) and (xxiv) shall file supplementary report containing the information specified in paragraph (b)(3) of this section.

(b)(1) The supplementary report required by paragraph (a)(1) of this section must contain:

(i) Such revisions of and additions to the information previously submitted by the manufacturer under this part regarding the automobiles whose projected average fuel economy has de-

creased as specified in paragraph (a)(1) of this section as are necessary—

(A) To reflect the decrease and its cause;

(B) To indicate a new projected average fuel economy based upon these additional measures.

(ii) An explanation of the cause of the decrease in average fuel economy that led to the manufacturer's having to submit the supplementary report required by paragraph (a)(1) of this section.

(2) The supplementary report required by paragraph (a)(2) of this section must contain:

(i) A statement of the specific nature of and reason for the insufficiency in the representativeness of the projected average fuel economy;

(ii) A statement of specific additional testing or derivation of fuel economy values by analytical methods believed by the manufacturer necessary to eliminate the insufficiency; and

(iii) A description of any plans of the manufacturer to undertake that testing or derivation voluntarily and submit the resulting data to the Environmental Protection Agency under 40 CFR 600.509.

(3) The supplementary report required by paragraph (a)(3) of this section must contain:

(i) All of the information omitted from the pre-model year report under § 537.6(c)(2); and

(ii) Such revisions of and additions to the information submitted by the manufacturer in its pre-model year report regarding the automobiles produced during the current model year as are necessary to reflect the information provided under paragraph (b)(3)(i) of this section.

(c)(1) Each report required by paragraph (a) (1) or (2) of this section must be submitted in accordance with § 537.5(c) not more than 45 days after the date on which the manufacturer determined, or could have, with reasonable diligence, determined that a report is required under paragraph (a) (1) or (2) of this section.

(2) Each report required by paragraph (a)(3) of this section must be submitted in accordance with § 537.5(c) not later than five days after the day by which the manufacturer is

required to submit a preliminary calculation of its average fuel economy for the current model year to the Environmental Protection Agency under 40 CFR 600.506.

(d) A supplementary report is not required to be submitted by the manufacturer under paragraph (a) (1) or (2) of this section:

(1) With respect to information submitted under this part before the most recent semiannual report submitted by the manufacturer under this part, or

(2) When the date specified in paragraph (c) of this section occurs:

(i) During the 60-day period immediately preceding the day by which the mid-model year report for the current model year must be submitted by the manufacturer under this part, or

(ii) After the day by which the pre-model year report for the model year immediately following the current model year must be submitted by the manufacturer under this part.

§ 537.9 Determination of fuel economy values and average fuel economy.

(a) *Vehicle configuration fuel economy values.* (1) For each vehicle configuration for which a fuel economy value is required under paragraph (c) of this section and has been determined and approved under 40 CFR Part 600, the manufacturer shall submit that fuel economy value.

(2) For each vehicle configuration specified in paragraph (a)(1) of this section for which a fuel economy value approved under 40 CFR Part 600, does not exist, but for which a fuel economy value determined under that part exists, the manufacturer shall submit that fuel economy value.

(3) For each vehicle configuration specified in paragraph (a)(1) of this section for which a fuel economy value has been neither determined nor approved under 40 CFR Part 600, the manufacturer shall submit a fuel economy value based on tests or analyses comparable to those prescribed or permitted under 40 CFR Part 600 and a description of the test procedures or analytical methods used.

(b) *Base level and model type fuel economy values.* For each base level and model type, the manufacturer

shall submit a fuel economy value based on the values submitted under paragraph (a) of this section and calculated in the same manner as base level and model type fuel economy values are calculated for use under Subpart F of 40 CFR Part 600.

(c) *Average fuel economy.* Average fuel economy must be based upon fuel economy values calculated under paragraph (b) of this section for each model type and must be calculated in accordance with 40 CFR 600.506, using the configurations specified in 40 CFR 600.506(a)(2), except that fuel economy values for running changes and for new base levels are required only for those changes made or base levels added before the average fuel economy is required to be submitted under this part.

§ 537.10 Incorporation by reference.

(a) A manufacturer may incorporate by reference in a report required by this part any document other than a report, petition, or application, or portion thereof submitted to any Federal department or agency more than two model years before the current model year.

(b) A manufacturer that incorporates by references a document not previously submitted to the National Highway Traffic Safety Administration shall append that document to the report.

(c) A manufacturer that incorporates by reference a document shall clearly identify the document and, in the case of a document previously submitted to the National Highway Traffic Safety Administration, indicate the date on which and the person by whom the document was submitted to this agency.

§ 537.11 Public inspection of information.

Except as provided in § 537.12, any person may inspect the information and data submitted by a manufacturer under this part in the docket section of the National Highway Traffic Safety Administration. Any person may obtain copies of the information available for inspection under this section in accordance with the regulations of the Secretary of Transportation in Part 7 of this title.

§ 537.12 Confidential information.

(a) Information made available under § 537.11 for public inspection does not include information for which confidentiality is requested under § 537.5(c)(7), is granted in accordance with section 505 of the Act and section 552(b) of Title 5 of the United States Code and is not subsequently released under paragraph (c) of this section in accordance with section 505 of the Act.

(b) *Denial of confidential treatment.* When the Administrator denies a manufacturer's request under § 537.5(c)(7) for confidential treatment of information, the Administrator gives the manufacturer written notice of the denial and reasons for it. Public disclosure of the information is not made until after the ten-day period immediately following the giving of the notice.

(c) *Release of confidential information.* After giving written notice to a manufacturer and allowing ten days, when feasible, for the manufacturer to respond, the Administrator may make available for public inspection any information submitted under this part that is relevant to a proceeding under the Act, including information that was granted confidential treatment by the Administrator pursuant to a request by the manufacturer under § 537.5(c)(7).

PART 542—PROCEDURES FOR SELECTING LINES TO BE COVERED BY THE THEFT PREVENTION STANDARD

Sec.

- 542.1 Procedures for selecting pre-standard new lines that are likely to have high theft rates.
- 542.2 Procedures for limiting the selection of pre-standard lines having or likely to have high theft rates to 14 lines.
- 542.3 Procedures for selecting pre-standard low theft lines with a majority of major parts that are interchangeable with those of a high theft line.
- 542.4 Procedures for selecting post-standard new lines that are likely to have high theft rates.
- 542.5 Procedures for selecting post-standard low theft new lines with a majority of major parts interchangeable with those of a high theft line.

AUTHORITY: 15 U.S.C. 2021, 2022, and 2023; delegation of authority at 49 CFR 1.50.

SOURCE: 50 FR 34837, Aug. 28, 1985, unless otherwise noted.

EFFECTIVE DATE NOTE: Part 542 was added at 50 FR 34837, Aug. 28, 1985, effective November 1, 1985. That document also provided:

"NOTE.—This rule refers to the appendices to Part 541, which is the proposed vehicle theft prevention standard. The notice of proposed rulemaking to establish Part 541 was published at 50 FR 19728, May 10, 1985. NHTSA anticipates a final rule for Part 541 will be published before this rule becomes effective. If that final rule has not been published by the date this rule is scheduled to become effective, the agency will publish a notice delaying the effective date for this rule."

§ 542.1 Procedures for selecting pre-standard new lines that are likely to have high theft rates.

(a) *Scope.* This section sets forth the procedures for motor vehicle manufacturers and NHTSA to follow in the determination of whether any pre-standard new lines are lines likely to have high theft rates.

(b) *Application.* These procedures apply to each manufacturer that has introduced or will introduce a new line into commerce in the United States after January 1, 1983, and before (the effective date of the standard, 49 CFR Part 541), and to each of those lines.

(c) *Procedures.* (1) Each manufacturer uses the criteria in Appendix C of Part 541 of this chapter to evaluate each new line and to identify those lines the manufacturer believes are likely to have a theft rate exceeding the median theft rate.

(2) The manufacturer submits its evaluations and identifications made under paragraph (c)(1) of this section, together with the factual information underlying those evaluations and identifications, to NHTSA by September 3, 1985.

(3) Within 30 days after its receipt of the manufacturer's submission under paragraph (c)(2) of this section, or by August 24, 1985, whichever is sooner, the agency considers that sub-

mission, if any, independently evaluates each new line using the criteria in Appendix C of Part 541 of this chapter, and, on a preliminary basis, determines whether those new lines should or should not be subject to § 541.5 of this chapter. NHTSA informs the manufacturer by letter of the agency's evaluations and determinations, together with the factual information considered by the agency in making them.

(4) The manufacturer may request the agency to reconsider any of its preliminary determinations made under paragraph (c)(3) of this section. The manufacturer must submit its request to the agency within 30 days of its receipt of the letter under paragraph (c)(3) of this section informing it of the agency's evaluations and preliminary determinations. The request must include the facts and arguments underlying the manufacturer's objections to the agency's preliminary determinations. During this 30 day period, the manufacturer may also request a meeting with the agency to discuss those objections.

(5) Each of the agency's preliminary determinations under paragraph (c)(3) of this section become final on October 15, 1985, unless a request for reconsideration of it has been received in accordance with paragraph (c)(4) of this section. If such a request has been received, the agency makes its final determinations by October 24, 1985, and informs the manufacturer by letter of those determinations and its response to the request for reconsideration.

§ 542.2 Procedures for limiting the selection of pre-standard lines having or likely to have high theft rates to 14 lines.

(a) *Scope.* This section sets forth the procedures for motor vehicle manufacturers and the NHTSA to follow in implementing the 14 line limit applicable to certain groups of high theft lines in the initial year of the theft prevention standard.

(b) *Application.* These procedures apply to each manufacturer that produces more than 14 lines that have been or will be introduced into com-

¹ See "Part 541, Federal Motor Vehicle Theft Prevention Standard" published at 50 FR 43190, Oct. 24, 1985, effective April 24, 1986.

merce in the United States before [the effective date of standard, 49 CFR Part 541] and that have been listed in Appendix A of Part 541 of this chapter or have been identified by the manufacturer or preliminarily determined by the agency to be high theft lines under § 542.1, and to each of those lines.

(c) *Procedures.* (1) Each manufacturer evaluates each of its lines in accordance with the criteria in Appendix B of Part 541 of this chapter and ranks the lines based on the extent to which they satisfy those criteria.

(2) Each manufacturer submits its evaluations and rankings made under paragraph (c)(1) of this section, together with the factual information underlying those evaluations and rankings, to NHTSA by September 3, 1985.

(3) Within 30 days after its receipt of the manufacturer's submission under paragraph (c)(2) of this section, or by August 24, 1985, whichever is sooner, the agency considers that submission, if any, independently evaluates each of the manufacturer's lines using the criteria in Appendix B of Part 541 and, on a preliminary basis, determines which 14 lines should be subject to § 541.5 of this chapter. NHTSA informs the manufacturer by letter of the agency's evaluations and rankings, together with the factual information considered by the agency in making them.

(4) The manufacturer may request the agency to reconsider its preliminary ranking under paragraph (c)(3) of this section of any of the highest 14 ranked lines. The manufacturer must submit its request to the agency within 30 days of its receipt of the letter under paragraph (c)(3) of this section informing it of the agency's evaluations and preliminary rankings. The request must include the facts and arguments underlying the manufacturer's objections to the agency's preliminary rankings. During this 30 day period, the manufacturer may also request a meeting with the agency to discuss those objections.

(5) Each of the agency's preliminary rankings of the 14 highest ranked lines under paragraph (c)(3) becomes final on October 15, 1985, unless a re-

quest for reconsideration of it has been received in accordance with paragraph (c)(4) of this section. If such a request has been received, the agency makes its final rankings by October 24, 1985, and informs the manufacturer by letter of those rankings and its response to the request for reconsideration.

§ 542.3 Procedures for selecting pre-standard low theft lines with a majority of major parts that are interchangeable with those of a high theft line.

(a) *Scope.* This section sets forth the procedures for motor vehicle manufacturers and the NHTSA to follow in the determination of whether any pre-standard lines with low theft rates have major parts interchangeable with a majority of the covered major parts of a line with an actual or likely high theft rate.

(b) *Application.* These procedures apply to:

(1) Each manufacturer that produces—

(i) At least one passenger motor vehicle line that has been or will be introduced into commerce in the United States before [the effective date of the standard, 49 CFR Part 541] and that has been listed in Appendix A of Part 541 of this chapter or identified by the manufacturer or preliminarily determined by the agency to be a high theft line under § 542.1, and

(ii) At least one line that has been or will be introduced into commerce in the United States before that date and that is below the median theft rate; and

(2) Each of those sub-median rate lines.

(c) *Procedures.* (1) For each of its lines with a theft rate below the median rate, each manufacturer identifies how many and which of the major parts of that line are interchangeable with the covered major parts of any other of its lines that has been listed in Appendix A of Part 541 of this chapter or identified by the manufacturer or preliminarily determined by the agency to be a high theft line under § 542.1.

(2) If the manufacturer concludes that one or more lines with a sub-

median theft rate has major parts that are interchangeable with a majority of the covered major parts of a high theft line, the manufacturer decides whether all the vehicles of those lines with sub-median theft rates and interchangeable parts account for more than 90 percent of the total annual production of all of the manufacturer's lines with those interchangeable parts.

(3) The manufacturer submits its identifications and conclusions made under paragraphs (c) (1) and (2) of this section, together with the facts and data underlying those identifications and conclusions, to NHTSA by September 3, 1985.

(4) Within 30 days after its receipt of the manufacturer's submission under paragraph (c)(3) of this section, or by August 24, 1985, whichever is sooner, the agency considers that submission, if any, and independently makes, on a preliminary basis, the determinations of those lines with sub-median theft rates which should or should not be subject to § 541.5 of this chapter. NHTSA informs the manufacturer by letter of those determinations, together with the bases for the determinations, including the factual information considered by the agency.

(5) The manufacturer may request the agency to reconsider any of its preliminary determinations made under paragraph (c)(4) of this section. The manufacturer must submit its request to the agency within 30 days of its receipt of the letter under paragraph (c)(4) informing it of the agency's preliminary determinations. The request must include the facts and arguments underlying the manufacturer's objections to the agency's preliminary determinations. During this 30 day period, the manufacturer may also request a meeting with the agency to discuss those objections.

(6) Each of the agency's preliminary determinations under paragraph (c)(4) becomes final on October 15, 1985, unless a request for reconsideration of it has been received in accordance with paragraph (c)(5) of this section. If such a request has been received, the agency makes its final determinations by October 24, 1985, and informs the manufacturer by letter of those

determinations and its response to the request for reconsideration.

§ 542.4 Procedures for selecting post-standard new lines that are likely to have high theft rates.

(a) *Scope.* This section sets forth the procedures for motor vehicle manufacturers and NHTSA to follow in the determination of whether any post-standard line is likely to have a theft rate above the median rate.

(b) *Application.* These procedures apply to each manufacturer which plans to introduce a new line into commerce in the United States on or after [the effective date of the standard, 49 CFR Part 541], and to each of those lines.

(c) *Procedures.* (1) Each manufacturer uses the criteria in Appendix C of Part 541 of this chapter to evaluate each new line and to conclude whether the manufacturer believes that new line is likely to have a theft rate exceeding the median theft rate.

(2) The manufacturer submits its evaluations and conclusions made under paragraph (c)(1) of this section, together with the factual information underlying those evaluations and conclusions, to the NHTSA not more than 24 months before the introduction of each new line and not less than 18 months before that date for new lines to be introduced in the 1988 or subsequent model years. For new lines to be introduced in the 1987 model year, the manufacturer makes this submission not later than October 1, 1985. The manufacturer may request a meeting with the agency during this period to further explain the bases for its evaluations and conclusions.

(3) Within 30 days after its receipt of the manufacturer's submission under paragraph (c)(2) of this section, or not later than December 31, 1985, in the case of new lines introduced in the 1987 model year, and within 90 days after its receipt of the manufacturer's submission under paragraph (a)(2) of this section, or not later than 15 months before the introduction of each new line, in the case of new lines to be introduced in the 1988 or subsequent model years, whichever is sooner, the agency considers that sub-

mission, if any, independently evaluates each new line using the criteria in Appendix C of Part 541 of this chapter and, on a preliminary basis, determines whether the new line should or should not be subject to § 541.5 of this chapter. NHTSA informs the manufacturer by letter of the agency's evaluations and determinations, together with the factual information considered by the agency in making them.

(4) The manufacturer may request the agency to reconsider any of its preliminary determinations made under paragraph (c)(3) of this section. The manufacturer must submit its request to the agency within 30 days of its receipt of the letter under paragraph (c)(3) informing it of the agency's evaluations and preliminary determinations. The request must include the facts and arguments underlying the manufacturer's objections to the agency's preliminary determinations. During this 30 day period, the manufacturer may also request a meeting with the agency to discuss those objections.

(5) Each of the agency's preliminary determinations under paragraph (c)(3) becomes final 45 days after the agency sends the letter specified in paragraph (c)(3) unless a request for reconsideration of it has been received in accordance with paragraph (c)(4) of this section. If such a request has been received, the agency makes its final determinations within 30 days of its receipt of the request for the 1987 model year and within 60 days of its receipt of the request for the 1988 and subsequent model years. NHTSA informs the manufacturer by letter of those determinations and its response to the request for reconsideration.

§ 542.5 Procedures for selecting post-standard low theft new lines with a majority of major parts interchangeable with those of a high theft line.

(a) *Scope.* This section sets forth the procedures for motor vehicle manufacturers and the NHTSA to follow in the determinations of whether any post-standard lines that will be likely to have a low theft rate have major parts interchangeable with a majority of the covered major parts of a line having or likely to have a high theft rate.

(b) *Application.* These procedures apply to:

(1) Each manufacturer that produces—

(i) At least one passenger motor vehicle line that has been or will be introduced into commerce in the United States and that has been listed in Appendix A of Part 541 of this chapter or has been identified by the manufacturer or preliminarily or finally determined by NHTSA to be a high theft line under § 542.1 or § 542.4, and

(b) At least one line that will be introduced into commerce in the United States on or after the effective date of the standard, 49 CFR Part 541) and that the manufacturer identifies as likely to have a theft rate below the median theft rate; and

(2) Each of those likely sub-median rate lines.

(c) *Procedures.* (1) For each new line that a manufacturer identifies under Appendix G as likely to have a theft rate below the median rate, the manufacturer identifies how many and which of the major parts of that line will be interchangeable with the covered major parts of any other of its lines that has been listed in Appendix A of Part 541 of this chapter or identified by the manufacturer or preliminarily or finally determined by the agency to be a high theft line under § 542.1 or § 542.4.

(2) If the manufacturer concludes that a new line with a likely sub-median theft rate will have major parts that are interchangeable with a majority of the covered major parts of a high theft line, the manufacturer determines whether all the vehicles of those lines with likely sub-median theft rates and interchangeable parts will account for more than 90% of the total annual production of all of the manufacturer's lines with those interchangeable parts.

(3) The manufacturer submits its evaluations and identifications made under paragraphs (c) (1) and (2) of this section, together with the factual information underlying those evaluations and identifications, to NHTSA not more than 24 months before introduction of the new line and not less than 18 months before that date for new lines to be introduced in the 1988

or subsequent model years. For new lines to be introduced in the 1987 model year, the manufacturer makes this submission not later than October 1, 1985. During this period, the manufacturer may request a meeting with the agency to further explain the bases for its evaluations and conclusions.

(4) Within 30 days after its receipt of the manufacturer's submission under paragraph (c)(3) of this section, or not later than December 31, 1985, in the case of new lines to be introduced in the 1987 model year, and within 90 days after its receipt of the manufacturer's submission under paragraph (c)(3) of this section, or not later than 15 months before the introduction of each new line, in the case of new lines to be introduced in the 1988 or subsequent model years, whichever is sooner, the agency considers that submission, if any, and independently makes, on a preliminary basis, the determinations of those lines with likely sub-median theft rates which should or should not be subject to § 541.5 of this chapter. NHTSA informs the manufacturer by letter of the agency's preliminary determinations, together with the factual information considered by the agency in making them.

(5) The manufacturer may request the agency to reconsider any of its preliminary determinations made under paragraph (c)(4) of this section. The manufacturer must submit its request to the agency within 30 days of its receipt of the letter under paragraph (c)(4) informing it of the agency's preliminary determinations. The request must include the facts and arguments underlying the manufacturer's objections to the agency's preliminary determinations. During this 30 day period, the manufacturer may also request a meeting with the agency to discuss those objections.

(6) Each of the agency's preliminary determinations made under paragraph (c)(4) becomes final 45 days after the agency sends the letter specified in that paragraph unless a request for reconsideration of it has been received in accordance with paragraph (c)(5) of this section. If such a request has been received, the agency makes it final determinations within 30 days of its re-

ceipt of the request for the 1987 model year and within 60 days of its receipt of the request for the 1988 and subsequent model years. NHTSA informs the manufacturer by letter of those determinations and its response to the request for reconsideration.

PART 551—PROCEDURAL RULES

Subpart A—General

Sec.

551.1 Scope.

Subpart B—[Reserved]

Subpart C—Submittals in Writing

551.31 Form of communications.

551.33 Address of communications.

551.35 Subscription of communications.

551.37 Language of communications.

Subpart D—Service of Process; Agents

551.45 Service of process on foreign manufacturers and importers.

AUTHORITY: Secs. 110(e), 119, 80 Stat. 719, 728; 15 U.S.C. 1399, 1407, 23 U.S.C. 315, 401-404; delegation of authority, 31 FR 13952, 32 FR 5606, unless otherwise noted.

SOURCE: 33 FR 19700, Dec. 25, 1968, unless otherwise noted. Redesignated at 35 FR 5118, Mar. 28, 1970.

Subpart A—General

§ 551.1 Scope.

This part contains rules of procedure generally applicable to the transaction of official business under the National Traffic and Motor Vehicle Safety Act of 1966, the Motor Vehicle Information and Cost Savings Act, and the Highway Safety Act of 1966. These rules apply in addition to the rules governing specific proceedings. In case of inconsistency with these general rules, the specific rules prevail.

[33 FR 19700, Dec. 25, 1968, as amended at 38 FR 20086, July 27, 1973]

Subpart B—[Reserved]

Subpart D—Service of Process;
Agents

Subpart C—Submittals in Writing

§ 551.31 Form of communications.

Any communication in writing relating to official business (including formal documents) shall be on opaque and durable paper not larger than 9 by 14 inches in size. Tables, charts, or originals of other documents that are attached to communications shall be folded to this size, if possible. The left margin of communications shall be at least 1½ inches wide, and if a communication is bound, it shall be bound on the left side. All copies submitted shall be legible.

§ 551.32 Address of communications.

Unless otherwise specified, communications shall be addressed to the Administrator, National Highway Traffic Safety Administration, U.S. Department of Transportation, 400 Seventh Street SW., Washington, D.C. 20590. Communications may not be addressed to a staff member's private address.

[36 FR 1147, Jan. 23, 1971; 38 FR 20086, July 27, 1973]

§ 551.35 Subscription of communications.

Each communication shall be signed in ink and shall disclose the full legal name and the address of the person signing it and, if he is an agent, of his principal.

§ 551.37 Language of communications.

Communications and attachments thereto shall be in English. Any matter written in a foreign language will be considered only if accompanied by a translation into English. A translation shall bear a certificate by the translator certifying that he is qualified to make the translation; that the translation is complete except as otherwise clearly indicated; and that it is accurate to the best of the translator's knowledge and belief. The translator shall sign the certificate in ink and state his full legal name, occupation, and address.

§ 551.45 Service of process on foreign manufacturers and importers.

(a) *Designation of agent for service.* Any manufacturer, assembler, or importer of motor vehicles or motor vehicle equipment (hereinafter called manufacturer) before offering a motor vehicle or item of motor vehicle equipment for importation into the United States, shall designate a permanent resident of the United States as his agent upon whom service of all processes, notices, orders, decisions, and requirements may be made for him and on his behalf as provided in section 110(e) of the National Traffic and Motor Vehicle Safety Act of 1966 (80 Stat. 718) and in this section. The agent may be an individual, a firm, or a domestic corporation. Any number of manufacturers may designate the same person as agent.

(b) *Form and contents of designation.* The designation shall be addressed to the Administrator, National Highway Traffic Safety Administration, U.S. Department of Transportation, 400 Seventh Street SW., Washington, D.C. 20590. It shall be in writing and dated; all signatures shall be in ink. The designation shall be made in legal form required to make it valid, and binding on the manufacturer, under the laws, corporate bylaws, or other requirements governing the making of the designation by the manufacturer at the place and time where it is made, and the person or persons signing the designation shall certify that it is so made. The designation shall disclose the full legal name, principal place of business, and mailing address of the manufacturer. If any of the products of the manufacturer do not bear his legal name, the marks, trade names, or other designations of origin which these products bear shall be stated in the designation. The designation of agent shall provide that it remains in effect until withdrawn or replaced by the manufacturer. The designation shall bear a declaration of acceptance duly signed by the designated agent. The full legal name and mailing address of the agent shall be

stated. Designations are binding on the manufacturer even when not in compliance with all the requirements of this section, until rejected by the Administrator. The designated agent may not assign performance of his functions under the designation to another person.

(c) *Method of service.* Service of any process, notice, order, requirement, or decision specified in section 110(e) of the National Traffic and Motor Vehicle Safety Act of 1966 may be made by registered or certified mail addressed to the agent, with return receipt requested, or in any other manner authorized by law. If service cannot be effected because the agent has died (or, if a firm or a corporation ceased to exist) or moved, or otherwise does not receive correctly addressed mail, service may be made by posting as provided in section 110(e).

(Secs. 110(e), 119, Pub. L. 89-563, 50 Stat. 718 (15 U.S.C. 1396e, 1407))

[33 FR 19700, Dec. 25, 1968. Redesignated and amended at 35 FR 5118, Mar. 26, 1970; 36 FR 1147, Jan. 23, 1971; 48 FR 44081, Sept. 27, 1983]

PART 552—PETITIONS FOR RULE-MAKING, DEFECT, AND NONCOMPLIANCE ORDERS

Sec.

552.1 Scope.

552.2 Purpose.

552.3 General.

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552.8 Determination whether to commence a proceeding.

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AUTHORITY: Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718, (15 U.S.C. 1392, 1407); secs. 124, 152, Pub. L. 93-492, 88 Stat. 1470, (15 U.S.C. 1410a, 1412); delegation of authority at 49 CFR 1.50.

SOURCE: 40 FR 42014, Sept. 10, 1975, unless otherwise noted.

§ 552.1 Scope.

This part establishes procedures for the submission and disposition of petitions filed by interested persons pursuant to the National Traffic and Motor Vehicle Safety Act and the Motor Ve-

hicle Information and Cost Savings Act, to initiate rulemaking or to make a determination that a motor vehicle or item of replacement equipment does not comply with an applicable Federal motor vehicle safety standard or contains a defect which relates to motor vehicle safety.

§ 552.2 Purpose.

The purpose of this part is to enable the National Highway Traffic Safety Administration to identify and respond on a timely basis to petitions for rulemaking or defect or noncompliance determinations, and to inform the public of the procedures following in response to such petitions.

§ 552.3 General.

Any interested person may file with the Administrator a petition requesting him (a) to commence a proceeding respecting the issuance, amendment, or revocation of a motor vehicle safety standard, or (b) to commence a proceeding to determine whether to issue an order concerning the notification and remedy of a failure of a motor vehicle or item of replacement equipment to comply with an applicable motor vehicle safety standard or a defect in such vehicle or equipment that relates to motor vehicle safety.

§ 552.4 Requirements for petition.

A petition filed under this part should be addressed and submitted to: Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C. 20590. Each petition filed under this part must:

(a) Be written in the English language;

(b) Have, preceding its text, a heading that includes the word "Petition";

(c) Set forth facts which it is claimed establish that an order is necessary;

(d) Set forth a brief description of the substance of the order which it is claimed should be issued; and

(e) Contain the name and address of the petitioner.

§ 552.5 Improperly filed petitions.

(a) A petition that is not addressed as specified in § 552.4, but that meets the other requirements of that section, will be treated as a properly filed petition, received as of the time it is discovered and identified.

(b) A document that fails to conform to one or more of the requirements of § 552.4(a) through (e) will not be treated as a petition under this part. Such a document will be treated according to the existing correspondence or other appropriate procedures of the NHTSA, and any suggestions contained in it will be considered at the discretion of the Administrator or his delegate.

§ 552.6 Technical review.

The appropriate Associate Administrator conducts a technical review of the petition, to determine whether there is a reasonable possibility that the requested order will be issued at the conclusion of the appropriate proceeding. The technical review may consist of an analysis of the material submitted, together with information already in the possession of the agency, or it may also include the collection of additional information, or a public meeting in accordance with § 552.7.

§ 552.7 Public meeting.

If the Associate Administrator decides that a public meeting on the subject of the petition would contribute to the determination whether to commence a proceeding, he issues a notice of public meeting for publication in the FEDERAL REGISTER to advise interested persons of the time, place, and subject matter of the public meeting and invite their participation. Interested persons may submit their views and evidence through oral or written presentations, or both. There is no cross examination of witnesses. A transcript of the meeting is kept and exhibits may be accepted as part of the transcript. Sections 556 and 557 of title 5, U.S.C., do not apply to meetings held under this part. The Chief Counsel designates a member of his staff to serve as legal officer at the meeting.

§ 552.8 Determination whether to commence a proceeding.

At the conclusion of the technical review, the Administrator or his delegate determines whether there is a reasonable possibility that the order requested in the petition will be issued at the conclusion of the appropriate proceeding. If such a reasonable possibility is found, the petition is granted. If it is not found, the petition is denied. In either event, the petitioner is notified of the grant or denial not more than 120 days after receipt of the petition by the NHTSA.

§ 552.9 Grant of petition.

(a) If a petition for rulemaking with respect to a motor vehicle safety standard is granted, a rulemaking proceeding is promptly commenced in accordance with applicable NHTSA and statutory procedures. The granting of such a petition and the commencement of a rulemaking proceeding does not signify, however, that the rule in question will be issued. A decision as to the issuance of the rule is made on the basis of all available information developed in the course of the rulemaking proceeding, in accordance with statutory criteria.

(b) If a petition with respect to a noncompliance or a defect is granted, a proceeding to determine the existence of the noncompliance or defect is promptly commenced by the initiation of an investigation by the Office of Standards Enforcement or the Office of Defects Investigation, as appropriate.

§ 552.10 Denial of petition.

If a petition is denied, a FEDERAL REGISTER notice of the denial is issued within 45 days of the denial, setting forth the reasons for denial of the petition.

PART 553—RULEMAKING PROCEDURES**Subpart A—General**

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Subpart B—Procedures for Adoption of Rules

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- 553.31–553.33 [Reserved]
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- 553.37 Proceedings on petitions for reconsideration.
- 553.39 Effect of petition for reconsideration on time for seeking judicial review.

APPENDIX—STATEMENT OF POLICY: ACTION ON PETITIONS FOR RECONSIDERATION

AUTHORITY: Sec. 9, Pub. L. 89-60, 80 Stat. 944 (49 U.S.C. 1657); secs. 103, 119, 124, Pub. L. 89-563, 80 Stat. 718, 15 U.S.C. 1392, 1407, 1410a; secs. 102, 105, 201, 205, 302, and 408, Pub. L. 92-513, 86 Stat. 947 (15 U.S.C. 1912, 1915, 1941, 1945, 1962, 1988); delegation of authority at 49 CFR 1.50, unless otherwise noted.

SOURCE: 33 FR 19700, Dec. 25, 1968, unless otherwise noted. Redesignated at 35 FR 5118, Mar. 26, 1970.

Subpart A—General

AUTHORITY: Sec. 202, Highway Safety Act of 1970, Pub. L. 91-605; secs. 103 and 119, National Traffic and Motor Vehicle Safety Act of 1966, 15 U.S.C. 1392, 1407; delegation of authority at 49 CFR 1.50, unless otherwise noted.

§ 553.1 Applicability.

This part prescribes rulemaking procedures that apply to the issuance, amendment, and revocation of rules pursuant to the National Traffic and Motor Vehicle Safety Act of 1966 and the Motor Vehicle Information and Cost Savings Act.

(Secs. 102, 105, 201, 205, 302, and 408, Pub. L. 92-513, 86 Stat. 947, 15 U.S.C. 1912, 1915, 1941, 1945, 1962, and 1988; delegation of authority at 38 FR 12147)

[38 FR 20086, July 27, 1973]

§ 553.3 Definitions.

"Acts" means the National Traffic and Motor Vehicle Safety Act of 1966, Pub. L. 89-563, 15 U.S.C. 1391, et seq., and the Motor Vehicle Information and Cost Savings Act, Pub. L. 92-513, 15 U.S.C. 1901, et seq.

"Administrator" means the Administrator of the National Highway Traffic Safety Administration or a person to whom he has delegated final authority in the matter concerned.

"Rule" includes any order, regulation, or Federal motor vehicle safety standard issued under the Acts.

(Secs. 102, 105, 201, 205, 302, and 408, Pub. L. 92-513, 86 Stat. 947, 15 U.S.C. 1912, 1915, 1941, 1945, 1962, and 1988; delegation of authority at 38 FR 12147)

[36 FR 1147, Jan. 23, 1971, as amended at 38 FR 20086, July 27, 1973]

§ 553.5 Regulatory docket.

(a) Information and data deemed relevant by the Administrator relating to rulemaking actions, including notices of proposed rulemaking; comments received in response to notices; petitions for rulemaking and reconsideration; denials of petitions for rulemaking and reconsideration; records of additional rulemaking proceedings under § 553.25; and final rules are maintained in the Docket Room, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C., 20590.

(b) Any person may examine any docketed material at the Docket Room at any time during regular business hours after the docket is established, except material ordered withheld from the public under applicable provisions of the Acts and section 552(b) of title 5 of the U.S.C., and may obtain a copy of it upon payment of a fee.

(Secs. 102, 105, 201, 205, 302, and 408, 501, Pub. L. 92-513, 86 Stat. 947 (15 U.S.C. 1912, 1915, 1941, 1945, 1962, 1988 and 2001); delegation of authority at 38 FR 12147)

[36 FR 1147, Jan. 23, 1971, as amended at 38 FR 20086, July 27, 1973; 48 FR 44081, Sept. 27, 1983]

§ 553.7 Records.

Records of the National Highway Traffic Safety Administration relating to rulemaking proceedings are avail-

able for inspection as provided in section 552(b) of title 5 of the U.S.C. and Part 7 of the regulations of the Secretary of Transportation (Part 7 of this title).

[36 FR 1147, Jan. 23, 1971]

Subpart B—Procedures for Adoption of Rules

EDITORIAL NOTE: Nomenclature changes to Subpart B appear at 36 FR 1148, Jan. 23, 1971.

§ 553.11 Initiation of rulemaking.

The Administrator may initiate rulemaking either on his own motion or on petition by any interested person after a determination in accordance with Part 552 of this title that grant of the petition is advisable. The Administrator may, in his discretion, also consider the recommendations of other agencies of the United States.

[40 FR 42015, Sept. 10, 1975]

§ 553.13 Notice of proposed rulemaking.

Unless the Administrator, for good cause, finds that notice is impracticable, unnecessary, or contrary to the public interest, and incorporates that finding and a brief statement of the reasons for it in the rule, a notice of proposed rulemaking is issued and interested persons are invited to participate in the rulemaking proceedings under applicable provisions of the Acts.

[40 FR 42015, Sept. 10, 1975]

§ 553.15 Contents of notices of proposed rulemaking.

(a) Each notice of proposed rulemaking is published in the FEDERAL REGISTER, unless all persons subject to it are named and are personally served with a copy of it.

(b) Each notice, whether published in the FEDERAL REGISTER or personally served, includes—

(1) A statement of the time, place, and nature of the proposed rulemaking proceeding;

(2) A reference to the authority under which it is issued;

(3) A description of the subjects and issues involved or the substance and terms of the proposed rule;

(4) A statement of the time within which written comments must be submitted; and

(5) A statement of how and to what extent interested persons may participate in the proceeding.

§ 553.17 Participation of interested persons.

(a) Any interested person may participate in rulemaking proceeding by submitting comments in writing containing information, views or arguments.

(b) In his discretion, the Administrator may invite any interested person to participate in the rulemaking procedures described in § 553.25.

§ 553.19 Petitions for extension of time to comment.

A petition for extension of the time to submit comments must be received not later than 10 days before expiration of the time stated in the notice. The petitions must be submitted to: Administrator, National Highway Traffic Safety Administration, U.S. Department of Transportation, 400 Seventh Street SW., Washington, D.C. 20590. It is requested, but not required, that 10 copies be submitted. The filing of the petition does not automatically extend the time for petitioner's comments. Such a petition is granted only if the petitioner shows good cause for the extension, and if the extension is consistent with the public interest. If an extension is granted, it is granted to all persons, and it is published in the FEDERAL REGISTER.

[36 FR 2511, Feb. 5, 1971, as amended at 38 FR 9825, Apr. 20, 1973]

§ 553.21 Contents of written comments.

All written comments shall be in English. Unless otherwise specified in a notice requesting comments, comments may not exceed 15 pages in length, but necessary attachments may be appended to the submission without regard to the 15-page limit. Any interested person shall submit as a part of his written comments all ma-

terial that he considers relevant to any statement of fact made by him. Incorporation by reference should be avoided. However, if incorporation by reference is necessary, the incorporated material shall be identified with respect to document and page. It is requested, but not required, that 10 copies of the comments and attachments, if any, be submitted.

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718, 15 U.S.C. 1392, 1407; secs. 102, 201, 408, 501, Pub. L. 92-513, 86 Stat. 947, 15 U.S.C. 1912, 1941, 1988, 2001; delegation of authority at 49 CFR 1.50)

[42 FR 58949, Nov. 14, 1977]

§ 553.23 Consideration of comments received.

All timely comments are considered before final action is taken on a rulemaking proposal. Late filed comments may be considered as far as practicable.

§ 553.25 Additional rulemaking proceedings.

The Administrator may initiate any further rulemaking proceedings that he finds necessary or desirable. For example, interested persons may be invited to make oral arguments, to participate in conferences between the Administrator or his representative and interested persons at which minutes of the conference are kept, to appear at informal hearings presided over by officials designated by the Administrator at which a transcript or minutes are kept, or participate in any other proceeding to assure informed administrative action and to protect the public interest.

§ 553.27 Hearings.

(a) Sections 556 and 557 of title 5, United States Code, do not apply to hearings held under this part. Unless otherwise specified, hearings held under this part are informal, nonadversary, fact-finding proceedings, at which there are no formal pleadings or adverse parties. Any rule issued in a case in which an informal hearing is held is not necessarily based exclusively on the record of the hearing.

(b) The Administrator designates a representative to conduct any hearing held under this part. The Chief Coun-

sel designates a member of his staff to serve as legal officer at the hearing.

§ 553.29 Adoption of final rules.

Final rules are prepared by representatives of the office concerned and the Office of the Chief Counsel. The rule is then submitted to the Administrator for its consideration. If the Administrator adopts the rule, it is published in the *FEDERAL REGISTER*, unless all persons subject to it are named and are personally served with a copy of it.

§§ 553.31—553.33 [Reserved]

§ 553.35 Petitions for reconsideration.

(a) Any interested person may petition the Administrator for reconsideration of any rule issued under this part. The petition shall be submitted to: Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C. 20590. It is requested, but not required, that 10 copies be submitted. The petition must be received not later than 30 days after publication of the rule in the *FEDERAL REGISTER*. Petitions filed after that time will be considered as petitions filed under Part 552 of this chapter. The petition must contain a brief statement of the complaint and an explanation as to why compliance with the rule is not practicable, is unreasonable, or is not in the public interest. Unless otherwise specified in the final rule, the statement and explanation together may not exceed 15 pages in length, but necessary attachments may be appended to the submission without regard to the 15-page limit.

(b) If the petitioner requests the consideration of additional facts, he must state the reason they were not presented to the Administrator within the prescribed time.

(c) The Administrator does not consider repetitious petitions.

(d) Unless the Administrator otherwise provides, the filing of a petition under this section does not stay the effectiveness of the rule.

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718, 15 U.S.C. 1392, 1407; secs. 102, 201, 408, 501, Pub. L. 92-513, 86 Stat. 947, 15 U.S.C. 1912, 1941, 1988, 2001; delegation of authority at 49 CFR 1.50)

[42 FR 58949, Nov. 14, 1977]

§ 553.37 Proceedings on petitions for reconsideration.

The Administrator may grant or deny, in whole or in part, any petition for reconsideration without further proceedings. In the event he determines to reconsider any rule, he may issue a final decision on reconsideration without further proceedings, or he may provide such opportunity to submit comment or information and data as he deems appropriate. Whenever the Administrator determines that a petition should be granted or denied, he prepares a notice of the grant or denial of a petition for reconsideration, for issuance to the petitioner, and issues it to the petitioner. The Administrator may consolidate petitions relating to the same rule.

§ 553.39 Effect of petition for reconsideration on time for seeking judicial review.

The filing of a timely petition for reconsideration of any rule issued under this part postpones the expiration of the 60-day period in which to seek judicial review of that rule, as to every person adversely affected by the rule. Such a person may file a petition for judicial review at any time from the issuance of the rule in question until 60 days after publication in the **FEDERAL REGISTER** of the Administrator's disposition of any timely petitions for reconsideration.

[35 FR 19268, Dec. 19, 1970]

APPENDIX—STATEMENT OF POLICY: ACTION ON PETITIONS FOR RECONSIDERATION

It is the policy of the National Highway Traffic Safety Administration to issue notice of the action taken on a petition for reconsideration within 90 days after the closing date for receipt of such petitions, unless it is found impracticable to take action within that time. In cases where it is so found and the delay beyond that period is expected to be substantial, notice of that fact, and the date by which it is expected that action will be taken, will be published in the **FEDERAL REGISTER**.

[39 FR 14593, Apr. 25, 1974]

PART 554—STANDARDS ENFORCEMENT AND DEFECTS INVESTIGATION**Sec.**

- 554.1 Scope.
- 554.2 Purpose.
- 554.3 Application.
- 554.4 Office of Vehicle Safety Compliance.
- 554.5 Office of Defects Investigation.
- 554.6 Opening an investigation.
- 554.7 Investigation priorities.
- 554.8 Monthly reports.
- 554.9 Availability of files.
- 554.10 Initial determinations and public meetings.
- 554.11 Final determinations.

AUTHORITY: Secs. 103, 108, 109, 112, 114, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1397, 1398, 1401, 1403, 1407); secs. 102-104, 196, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1410a, 1411-1418); delegations of authority at 49 CFR 1.50.

SOURCE: 45 FR 10797, Feb. 19, 1980, unless otherwise noted.

§ 554.1 Scope.

This part establishes procedures for enforcing Federal motor vehicle safety standards and associated regulations, investigating possible safety-related defects, and making non-compliance and defect determinations.

§ 554.2 Purpose.

The purpose of this part is to inform interested persons of the procedures followed by the National Highway Traffic Safety Administration in order more fairly and effectively to implement National Traffic and Motor Vehicle Safety Act (the Act).

§ 554.3 Application.

This part applies to actions, investigations, and defect and non-compliance determinations of the National Highway Traffic Safety Administration under sections 109, 112, 124, 152, 156, 157, and 158 of the Act (15 U.S.C. 1398, 1401, 1411, 1412, 1416, 1417, 1418).

§ 554.4 Office of Vehicle Safety Compliance.

The Office of Vehicle Safety Compliance, investigates compliance with Federal motor vehicle safety standards

and associated regulations, and to this end may:

(a) Verify that manufacturers certify compliance with all applicable safety standards;

(b) Collect field reports from all sources;

(c) Inspect manufacturers' certification test data and other supporting evidence, including dealer communications;

(d) Inspect vehicles and equipment already in use or new vehicles and equipment at any stage of the manufacturing, distribution and sales chain;

(e) Conduct selective compliance tests; and

(f) Utilize other means necessary to conduct investigations.

§ 554.5 Office of Defects Investigation.

The Office of Defects Investigation conducts investigations to implement the provisions of the Act concerning the identification and correction of safety-related defects in motor vehicles and motor vehicle equipment. It elicits from every available source and evaluates on a continuing basis any information suggesting the existence of a safety-related defect.

§ 554.6 Opening an investigation.

(a) A compliance or defect investigation is opened either on the motion of the Administrator or his delegate or on the granting of a petition of an interested party under Part 552 of this chapter.

(b) A manufacturer is notified immediately by telephone of any compliance test failure in order to enable the manufacturer to begin his own investigation. Notification is sent by mail at the beginning of any defect or non-compliance investigation.

§ 554.7 Investigation priorities.

(a) Compliance investigation priorities are reviewed annually and are set according to the following criteria:

(1) Prior compliance test data;

(2) Accident data;

(3) Engineering analysis of vehicle and equipment designs;

(4) Consumer complaints; and

(5) Market share.

(b) Defects inputs are reviewed periodically by an appropriate panel of en-

gineers in consultation with the Office of Chief Counsel to determine whether a formal investigation should be opened by the Office of Defects Investigation.

§ 554.8 Monthly reports.

(a) *Compliance.* A monthly compliance report is issued which lists investigations opened, closed, and pending during that month, identifies compliance test reports accepted, and indicates how individual reports may be obtained.

(b) *Defects.* A monthly defects report is issued which lists investigations opened, closed, pending, and suspended during that month. An investigation may be designated "suspended" where the information available is insufficient to warrant further investigation. Suspended cases are automatically closed 60 days after appearing in a monthly report unless new information is received which justifies a different disposition.

§ 554.9 Availability of files.

All files of closed or suspended investigations are available for public inspection in the NHTSA Technical Reference Library. Communications between the agency and a manufacturer with respect to ongoing investigations are also available. Such files and communications may contain material which is considered confidential but has been determined to be necessary to the subject proceeding. Material which is considered confidential but has not been determined to be necessary to the subject proceeding will not be disclosed. Reproduction of entire public files or of individual documents can be arranged.

§ 554.10 Initial determinations and public meetings.

(a) An initial determination of failure to comply with safety standards or of a safety-related defect is made by the Administrator or his delegate based on the completed investigative file compiled by the appropriate office.

(b) The determination is communicated to the manufacturer in a letter which makes available all information

on which the decision is based. The letter advises the manufacturer of his right to present data, views and arguments to establish that there is no defect or failure to comply or that the alleged defect does not affect motor vehicle safety. The letter also specifies the time and place of a public meeting for the presentation of arguments or sets a date by which written comments must be submitted. Submission of all information, whether at a public hearing or in written form, is normally scheduled about 30 days after the initial determination. The deadline for submission of information can be extended by the Administrator for good cause shown.

(c) Public notice of an initial determination is made in a FEDERAL REGISTER notice that—

(1) Identifies the motor vehicle or item of equipment and its manufacturer;

(2) Summarizes the information upon which the determination is based;

(3) Gives the location of all information available for public examination; and

(4) States the time and place of a public meeting or the deadline for written submissions in which the manufacturer and interested persons may present data, views, and arguments respecting the determination.

(d) A transcript of the public meeting is kept and exhibits may be offered. There is no cross-examination of witnesses.

(e) If the Administrator makes a determination that a failure to comply or a safety-related defect does not exist he may, at his discretion in a particular case, within 60 days of the determination, invite interested persons to submit their views on the NHTSA investigation in a public meeting. Notice and procedures for such a meeting are as specified in paragraphs (c) and (d) of this section.

§ 554.11 Final determinations.

(a) The Administrator bases his final determination on the completed investigatory file and the data, views, and arguments submitted at the public meeting.

(b) If the Administrator determines that a failure to comply or a safety-related defect exists, he orders the manufacturer to furnish the notification specified in the Act and to remedy the defect or failure to comply.

(c) If the Administrator determines that a failure to comply or a safety-related defect does not exist, he so notifies the manufacturer and publishes this finding in the FEDERAL REGISTER.

(d) A statement of the Administrator's final determination and the reasons for it appears in each completed public file.

PART 555—TEMPORARY EXEMPTION FROM MOTOR VEHICLE SAFETY STANDARDS

Sec.

555.1 Scope.

555.2 Purpose.

555.3 Application.

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555.9 Temporary exemption labels.

555.10 Availability for public inspection.

AUTHORITY: Sec. 3, Pub. L. 92-548, 86 Stat. 1159; sec. 119, Pub. L. 89-563 (15 U.S.C. 1410, 1407), 30 Stat. 718, delegation of authority at 49 CFR 1.50, unless otherwise noted.

SOURCE: 33 FR 2694, Jan. 29, 1973, unless otherwise noted.

§ 555.1 Scope.

This part establishes requirements for the temporary exemption, by the National Highway Traffic Safety Administration (NHTSA), of certain motor vehicles from compliance with one or more Federal motor vehicle safety standards in accordance with section 123 of the National Traffic and Motor Vehicle Safety Act of 1966, 15 U.S.C. 1410.

§ 555.2 Purpose.

The purpose of this part is to provide a means by which manufacturers of motor vehicles may obtain temporary exemptions from Federal motor vehicle safety standards on the basis of substantial economic hardship, fa-

cilitation of the development of new motor vehicle safety or low-emission engine features, or existence of an equivalent overall level of motor vehicle safety.

§ 555.3 Application.

This part applies to manufacturers of motor vehicles.

§ 555.4 Definitions.

"Administrator" means the National Highway Traffic Safety Administrator or his delegate.

"United States" means the several States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the Virgin Islands, the Canal Zone, and American Samoa.

§ 555.5 Petition for exemption.

(a) A manufacturer of motor vehicles may petition the NHTSA for a temporary exemption from any Federal motor vehicle safety standard or for a renewal of any exemption on the bases of substantial economic hardship, facilitation of the development of new motor vehicle safety or low-emission engine features, or the existence of an equivalent overall level of motor vehicle safety.

(b) Each petition filed under this part for an exemption or its renewal must—

(1) Be written in the English language;

(2) Be submitted in three copies to: Administrator, National Highway Traffic Safety Administration, Washington, D.C. 20590;

(3) State the full name and address of the applicant, the nature of its organization (individual, partnership, corporation, etc.) and the name of the State or country under the laws of which it is organized;

(4) State the number and title, and the text or substance of the standard or portion thereof from which the temporary exemption is sought, and the length of time desired for such exemption;

(5) Set forth the basis for the petition and the information required by § 555.6(a), (b), (c), or (d) as appropriate.

(6) Specify any part of the information and data submitted which peti-

tioner requests be withheld from public disclosure in accordance with Part 512 of this chapter.

(7) Set forth the reasons why the granting of the exemption would be in the public interest and consistent with the objectives of the National Traffic and Motor Vehicle Safety Act.

(c) The knowing and willful submission of false, fictitious or fraudulent information will subject the petitioner to the civil and criminal penalties of 18 U.S.C. 1001.

[38 FR 2694, Jan. 29, 1973, as amended at 39 FR 5489, Feb. 13, 1974; 46 FR 2063, Jan. 8, 1981]

§ 555.6 Basis for petition.

(a) If the basis of the petition is substantial economic hardship the petitioner shall provide the following information.

(1) Engineering and financial information demonstrating in detail how compliance or failure to obtain an exemption would cause substantial economic hardship, including—

(i) A list or description of each item of motor vehicle equipment that would have to be modified in order to achieve compliance;

(ii) The itemized estimated cost to modify each such item of motor vehicle equipment if compliance were to be achieved—

(a) As soon as possible,

(b) At the end of a 1-year exemption period (if the petition is for 1 year or more),

(c) At the end of a 2-year exemption period (if the petition is for 2 years or more),

(d) At the end of a 3-year exemption period (if the petition is for 3 years),

(iii) The estimated price increase per vehicle to balance the total costs incurred pursuant to paragraph (a)(1)(ii) of this section and a statement of the anticipated effect of each such price increase;

(iv) Corporate balance sheets and income statements for the three fiscal years immediately preceding the filing of the application;

(v) Projected balance sheet and income statement for the fiscal year following a denial of the petition; and

(vi) A discussion of any other hardships (e.g., loss of market) that the petitioner desires the agency to consider.

(2) A description of its efforts to comply with the standards, including—

(i) A chronological analysis of such efforts showing its relationship to the rule making history of the standard from which exemption is sought;

(ii) A discussion of alternate means of compliance considered and the reasons for rejection of each;

(iii) A description of the steps to be taken, while the exemption is in effect, and the estimated date by which full compliance will be achieved either by design changes or termination of production of nonconforming vehicles; and

(iv) The total number of motor vehicles produced by or on behalf of the petitioner in the 12-month period prior to filing the petition, and the inclusive dates of the period. (Section 123 of the Act limits eligibility for exemption on the basis of economic hardship to manufacturers whose total motor vehicle production does not exceed 10,000.)

(b) If the basis of the petition is the development or field evaluation of new motor vehicle safety features, the petitioner shall provide the following information:

(1) A description of the safety features, and research, development, and testing documentation establishing the innovational nature of such features.

(2) An analysis establishing that the level of safety of the features is equivalent to or exceeds the level of safety established in the standard from which exemption is sought, including—

(i) A detailed description of how a motor vehicle equipped with the safety features differs from one that complies with the standard;

(ii) If applicant is presently manufacturing a vehicle conforming to the standard, the results of tests conducted to substantiate certification to the standard; and

(iii) The results of tests conducted on the safety features that demonstrate performance which meets or ex-

ceeds the requirements of the standard.

(3) Substantiation that a temporary exemption would facilitate the development or field evaluation of the vehicle.

(4) A statement whether, at the end of the exemption period, the manufacturer intends to conform to the standard, apply for a further exemption, or petition for rulemaking to amend the standard to incorporate the safety features.

(5) A statement that not more than 2,500 exempted vehicles will be sold in the United States in any 12-month period for which an exemption may be granted pursuant to this paragraph. A petition for renewal of such an exemption shall also include the total number of exempted vehicles sold in the United States under the existing exemption.

(c) If the basis of the petition is the development or field evaluation of a low-emission motor vehicle, the petitioner shall provide—

(1) Substantiation that the motor vehicle is a low-emission vehicle as defined by section 123(g) of the Act.

(2) Research, development, and testing documentation establishing that a temporary exemption would not unreasonably degrade the safety of the vehicle, including—

(i) A detailed description of how the motor vehicle equipped with the low-emission engine would, if exempted, differ from one that complies with the standard;

(ii) If applicant is presently manufacturing a vehicle conforming to the standard, the results of tests conducted to substantiate certification to the standard;

(iii) The results of any tests conducted on the vehicle that demonstrate its failure to meet the standard, expressed as comparative performance levels; and

(iv) Reasons why the failure to meet the standard does not unreasonably degrade the safety of the vehicle.

(3) Substantiation that a temporary exemption would facilitate the development or field evaluation of the vehicle.

(4) A statement whether, at the end of the exemption period, the manufac-

turer intends to conform with the standard.

(5) A statement that not more than 2,500 exempted vehicles will be sold in the United States in any 12-month period for which an exemption may be granted pursuant to this paragraph. A petition for renewal of an exemption shall also include the total number of exempted vehicles sold in the United States under the existing exemption.

(d) If the basis of the petition is that the petitioner is otherwise unable to sell a motor vehicle whose overall level of safety is equivalent to or exceeds the overall level of safety of nonexempted motor vehicles, the petitioner shall provide—

(1) A detailed analysis of how the vehicle provides an overall level of safety equivalent to or exceeding the overall safety of nonexempted vehicles, including—

(i) A detailed description of how the motor vehicle, if exempted, differs from one that conforms to the standard;

(ii) A detailed description of any safety features that the motor vehicle offers as standard equipment that are not required by the Federal motor vehicle safety standards;

(iii) The results of any tests conducted on the vehicle demonstrating that it fails to meet the standard, expressed as comparative performance levels;

(iv) The results of any tests conducted on the vehicle demonstrating that its overall level of safety exceeds that which is achieved by conformity to the standards.

(v) Other arguments that the overall level of safety of the vehicle equals or exceeds the level of safety of nonexempted vehicles.

(2) Substantiation that compliance would prevent the sale of the vehicle.

(3) A statement whether, at the end of the exemption period, the manufacturer intends to comply with the standard.

(4) A statement that not more than 2,500 exempted vehicles will be sold in the United States in any 12-month period for which an exemption may be granted pursuant to this paragraph. A petition for renewal of any exemption shall also include the total number of

exempted vehicles sold in the United States under the existing exemption.

[38 FR 2694, Jan. 29, 1973, as amended at 39 FR 5489, Feb. 13, 1974]

§ 555.7 Processing of petitions.

(a) The NHTSA publishes in the **FEDERAL REGISTER**, affording opportunity for comment, a notice of each petition containing the information required by this part. However, if the NHTSA finds that a petition does not contain the information required by this part, it so informs the petitioner, pointing out the areas of insufficiency and stating that the petition will not receive further consideration until the required information is submitted.

(b) No public hearing, argument, or other formal proceeding is held directly on a petition filed under this part before its disposition under this section.

(c) Any interested person may, upon written request, appear informally before an appropriate official of the NHTSA to discuss a petition for exemption or the action taken in response to a petition.

(d) If the Administrator determines that the petition does not contain adequate justification, he denies it and notifies the petitioner in writing. He also publishes in the **FEDERAL REGISTER** a notice of the denial and the reasons for it.

(e) If the Administrator determines that the petition contains adequate justification, he grants it, and notifies the petitioner in writing. He also publishes in the **FEDERAL REGISTER** a notice of the grant and the reasons for it.

(f) Unless a later effective date is specified in the notice of the grant, a temporary exemption is effective upon publication of the notice in the **FEDERAL REGISTER** and exempts vehicles manufactured on and after the effective date.

[38 FR 2694, Jan. 29, 1973, as amended at 39 FR 5489, Feb. 13, 1974; 39 FR 37988, Oct. 25, 1974]

§ 555.8 Termination of temporary exemptions.

(a) A temporary exemption from a standard granted on the basis of sub-

stantial economic hardship terminates according to its terms but not later than 3 years after the date of issuance unless terminated sooner pursuant to paragraph (d) of this section.

(b) A temporary exemption from a standard granted on a basis other than substantial economic hardship terminates according to its terms but not later than 2 years after the date of issuance unless terminated sooner pursuant to paragraph (d) of this section.

(c) Any interested person may petition for the termination or modification of an exemption granted under this part. The petition will be processed in accordance with the procedures of Part 552 of this chapter.

(d) The Administrator terminates or modifies a temporary exemption if he determines that—

(1) The temporary exemption is no longer consistent with the public interest and the objectives of the Act; or

(2) The temporary exemption was granted on the basis of false, fraudulent, or misleading representations or information.

(e) If a petition for renewal of a temporary exemption that meets the requirements of § 555.5 has been filed not later than 60 days before the termination date of an exemption, the exemption does not terminate until the Administrator grants or denies the petition for renewal.

(f) The Administrator publishes in the **FEDERAL REGISTER** a notice of:

(1) A petition for termination or modification of an exemption and the action taken in response to it; and

(2) Any termination or modification of an exemption pursuant to the Administrator's own motion.

[38 FR 2694, Jan. 29, 1973, as amended at 39 FR 37989, Oct. 25, 1974; 40 FR 42015, Sept. 10, 1975]

§ 555.9 Temporary exemption labels.

A manufacturer of an exempted vehicle shall—

(a) Submit to the Administrator, within 30 days after receiving notification of the grant of an exemption, a sample of the certification label required by Part 567 of this chapter and paragraph (c) of this section;

(b) Affix securely to the windshield or side window of each exempted vehi-

cle a label in the English language containing the statement required by paragraph (c)(1) or (2) of this section, and with the words "Shown above" omitted.

(c) Meet all applicable requirements of Part 567 of this chapter, except that—

(1) Instead of the statement required by § 567.4(g)(5) of this chapter, the following statement shall appear: "THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY (AND BUMPER) STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE EXCEPT FOR STANDARDS NOS. [listing the standards by number and title for which an exemption has been granted] EXEMPTED PURSUANT TO NHTSA EXEMPTION NO. _____."

(2) Instead of the statement required by § 567.5(c)(7)(iii), the following statement shall appear: "THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY (AND BUMPER) STANDARDS IN EFFECT IN [Month, Year] EXCEPT FOR STANDARD NOS. [Listing the standards by number and title for which an exemption has been granted] EXEMPTED PURSUANT TO NHTSA EXEMPTION NO. _____."

(Secs. 114, 119, Pub. L. 89-563, 86 Stat. 718 (15 U.S.C. 1403, 1408); sec. 3, Pub. L. 92-548, 86 Stat. 1159 (15 U.S.C. 1410); secs. 102, 105, Pub. L. 92-513, 86 Stat. 947 (15 U.S.C. 1912, 1915); delegations of authority at 49 CFR 1.50 and 501.8)

[38 FR 2694, Jan. 29, 1973, as amended at 50 FR 10772, Mar. 18, 1985]

§ 555.10 Availability for public inspection.

(a) Information relevant to a petition under this part, including the petition and supporting data, memoranda of informal meetings with the petitioner or any other interested person, and the grant or denial of the petition, is available for public inspection, except as specified in paragraph (b) of this section, in the Docket Section, Room 5109, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590. Copies of available information may be obtained, as provided in Part 7 of

the regulations of the Office of the Secretary of Transportation (49 CFR Part 7).

(b) Except for the release of confidential information authorized by Part 512 of this chapter, information made available for inspection under paragraph (a) shall not include materials not relevant to the petition for which confidentiality is requested and granted in accordance with sections 112, 113, and 158 of the Act (15 U.S.C. 1401, 1402, and 1413) and section 552(b) of title 5 of the U.S.C.).

[38 FR 2694, Jan. 29, 1973, as amended at 46 FR 2064, Jan. 8, 1981; 48 FR 44081, Sept. 27, 1983]

PART 556—EXEMPTION FOR INCONSEQUENTIAL DEFECT OR NON-COMPLIANCE

Sec.

556.1 Scope.

556.2 Purpose.

556.3 Application.

556.4 Petition for exemption.

556.5 Processing of petition.

556.6 Meetings.

556.7 Disposition of petition.

556.8 Rescission of decision.

556.9 Public inspection of relevant information.

AUTHORITY: Sec. 157, Pub. L. 93-492, 88 Stat. 1470; (15 U.S.C. 1417), delegation of authority at 49 CFR 1.50, unless otherwise noted.

SOURCE: 42 FR 7145, Feb. 7, 1977, unless otherwise noted.

§ 556.1 Scope.

This part sets forth procedures, pursuant to section 157 of the Act, for exempting manufacturers of motor vehicles and replacement equipment from the Act's notice and remedy requirements when a defect or noncompliance is determined to be inconsequential as it relates to motor vehicle safety.

§ 556.2 Purpose.

The purpose of this part is to enable manufacturers of motor vehicles and replacement equipment to petition the NHTSA for exemption from the notification and remedy requirements of the Act due to the inconsequentiality of the defect or noncompliance as it relates to motor vehicle safety, and to give all interested persons an opportunity

for presentation of data, views, and arguments on the issues of inconsequentiality.

§ 556.3 Application.

This part applies to manufacturers of motor vehicles and replacement equipment.

§ 556.4 Petition for exemption.

(a) A manufacturer who has determined the existence, in a motor vehicle or item of replacement equipment that he produces, of a defect related to motor vehicle safety or a noncompliance with an applicable Federal motor vehicle safety standard, or who has received notice of an initial determination by the NHTSA of the existence of a defect related to motor vehicle safety or a noncompliance, may petition for exemption from the Act's notification and remedy requirements on the grounds that the defect or noncompliance is inconsequential as it relates to motor vehicle safety.

(b) Each petition submitted under this part shall—

(1) Be written in the English language;

(2) Be submitted in three copies to: Administrator, National Highway Traffic Safety Administration, Washington, D.C. 20590;

(3) State the full name and address of the applicant, the nature of its organization (e.g., individual, partnership, or corporation) and the name of the State or country under the laws of which it is organized.

(4) Describe the motor vehicle or item of replacement equipment, including the number involved and the period of production, and the defect or noncompliance concerning which an exemption is sought; and

(5) Set forth all data, views, and arguments of the petitioner supporting his petition.

(c) In the case of defects related to motor vehicle safety or noncompliances determined to exist by a manufacturer, petitions under this part must be submitted not later than 30 days after such determination. In the case of defects related to motor vehicle safety or noncompliances initially determined to exist by the NHTSA,

petitions must be submitted not later than 30 days after notification of the determination has been received by the manufacturer. Such a petition will not constitute a concession by the manufacturer of, nor will it be considered relevant to, the existence of a defect related to motor vehicle safety or a nonconformity.

§ 556.5 Processing of petition.

(a) The NHTSA publishes a notice of each petition in the **FEDERAL REGISTER**. Such notice includes:

(1) A brief summary of the petition;

(2) A statement of the availability of the petition and other relevant information for public inspection; and

(3) (i) In the case of a defect related to motor vehicle safety or a noncompliance determined to exist by the manufacturer, an invitation to interested persons to submit written data, views, and arguments concerning the petition, and, upon request by the petitioner or interested persons, a statement of the time and place of a public meeting at which such materials may be presented orally if any person so desires.

(ii) In the case of a defect related to motor vehicle safety or a noncompliance initially determined to exist by the NHTSA, an invitation to interested persons to submit written data, views, and arguments concerning the petition or to submit such data, views, and arguments orally at the meeting held pursuant to section 152(a) of the Act following the initial determination, or at a separate meeting if deemed appropriate by the agency.

§ 556.6 Meetings.

(a) At a meeting held under this part, any interested person may make oral (as well as written) presentations of data, views, and arguments on the question whether the defect or noncompliance described in the **FEDERAL REGISTER** notice is inconsequential as it relates to motor vehicle safety.

(b) Sections 556 and 557 of title 5, U.S.C., do not apply to any meeting held under this part. Unless otherwise specified, any meeting held under this part is an informal, nonadversary, fact-finding proceeding, at which there are no formal pleadings or ad-

verse parties. A decision to grant or deny a petition, after a meeting on such petition, is not necessarily based exclusively on the record of the meeting.

(c) The Administrator designates a representative to conduct any meeting held under this part. The Chief Counsel designates a member of his staff to serve as legal officer at the meeting. A transcript of the proceeding is kept and exhibits may be kept as part of the transcript.

§ 556.7 Disposition of petition.

Notice of either a grant or denial of a petition for exemption from the notice and remedy requirements of the Act based upon the inconsequentiality of a defect or noncompliance is issued to the petitioner and published in the **FEDERAL REGISTER**. The effect of a grant of a petition is to relieve the manufacturer from any further responsibility to provide notice and remedy of the defect or noncompliance. The effect of a denial is to continue in force, as against a manufacturer, all duties contained in the Act relating to notice and remedy of the defect or noncompliance. Any interested person may appeal the grant or denial of a petition by submitting written data, views, or arguments to the Administrator.

§ 556.8 Rescission of decision.

The Administrator may rescind a grant or denial of an exemption issued under this part any time after the receipt of new data and notice and opportunity for comment thereon, in accordance with §§ 556.5 and 556.7.

§ 556.9 Public inspection of relevant information.

Information relevant to a petition under this part, including the petition and supporting data, memoranda of informal meetings with the petitioner or any other interested person concerning the petition, and the notice granting or denying the petition, are available for public inspection in the Docket Section, Room 5109, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, D.C. 20590. Copies of available

information may be obtained in accordance with Part 7 of the regulations of the Office of the Secretary of Transportation (49 CFR Part 7).

(Sec. 104, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1417))

[42 FR 7145, Feb. 7, 1977, as amended at 48 FR 44061, Sept. 27, 1983]

PART 557—PETITIONS FOR HEARINGS ON NOTIFICATION AND REMEDY OF DEFECTS

Sec.

557.1 Scope.

557.2 Purpose.

557.3 General.

557.4 Requirements for petition.

557.5 Improperly filed petitions.

557.6 Determination whether to hold a public hearing.

557.7 Public hearing.

557.8 Determination of manufacturer's obligation.

AUTHORITY: Sec. 9, Pub. L. 89-670, 80 Stat. 931 (49 U.S.C. 1657); sec. 103, 119, Pub. L. 89-563, 80 Stat. 719 (15 U.S.C. 1392, 1407); sec. 156, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1416); delegation of authority at 49 CFR 1.50).

SOURCE: 41 FR 56812, Dec. 30, 1976, unless otherwise noted.

§ 557.1 Scope.

This part establishes procedures under section 156 of the National Traffic and Motor Vehicle Safety Act of 1966, as amended (88 Stat. 1470, 15 U.S.C. 1416), for the submission and disposition of petitions filed by interested persons for hearings on the question of whether a manufacturer has reasonably met his obligation to notify owners, purchasers, and dealers of a safety-related defect or failure to comply with a Federal motor vehicle safety standard, or to remedy such defect or failure to comply. This part also establishes procedures for holding a hearing on these questions.

§ 557.2 Purpose.

The purpose of this part is to enable the National Highway Traffic Safety Administration to identify and respond on a timely basis to petitions for hearings on whether a manufacturer has reasonably met his obligation to notify or remedy, and to establish the procedures for such hearings.

§ 557.3 General.

Any interested person may file with the Administrator a petition requesting him to hold a hearing on—

(a) Whether a manufacturer has reasonably met his obligation to notify owners, purchasers, and dealers of a safety-related defect in any motor vehicle or item or replacement equipment manufactured by him;

(b) Whether a manufacturer has reasonably met his obligation to notify owners, purchasers, and dealers of a failure to comply with an applicable Federal motor vehicle safety standard in any motor vehicle or item of replacement equipment manufactured by him;

(c) Whether the manufacturer has reasonably met his obligation to remedy a safety-related defect in any motor vehicle or item of replacement equipment manufactured by him; or

(d) Whether the manufacturer has reasonably met his obligation to remedy a failure to comply with an applicable Federal motor vehicle safety standard in any motor vehicle or item of replacement equipment manufactured by him.

§ 557.4 Requirements for petition.

A petition filed under this part should be addressed and submitted to: Administrator, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590. Each petition filed under this part must—

(a) Be written in the English or Spanish language;

(b) Have, preceding its text, the word "Petition";

(c) Contain a brief statement concerning the alleged failure of a manufacturer to meet reasonably his obligation to notify or remedy;

(d) Contain a brief summary of the data, views, or arguments that the petitioner wishes to present in a hearing on whether or not a manufacturer has reasonably met his obligations to notify or remedy;

(e) Specifically request a hearing.

§ 557.5 Improperly filed petitions.

(a) A petition that is not addressed as specified in § 557.4, but that meets

the other requirements of that section, will be treated as a properly filed petition, received as of the time it is discovered and identified.

(b) A document that fails to conform to one or more of the requirements of paragraphs § 567.4(a) (1) through (5) will not be treated as a petition under this part. Such a document will be treated according to the existing correspondence and other procedures of the NHTSA, and any information contained in it will be considered at the discretion of the Administrator.

§ 557.6 Determination whether to hold a public hearing.

(a) The Administrator considers the following factors in determining whether to hold a hearing:

- (1) The nature of the Complaint;
- (2) The seriousness of the alleged breach of obligation to remedy;
- (3) The existence of similar complaints;
- (4) The ability of the NHTSA to resolve the problem without holding a hearing; and
- (5) Other pertinent matters.

(b) If, after considering the above factors, the Administrator determines that a hearing should be held, the petition is granted. If it is determined that a hearing should not be held, the petition is denied. In either case, the petitioner is notified of the grant or denial not more than 60 days after receipt of the petition by the NHTSA.

(c) If a petition submitted under this part is denied, a FEDERAL REGISTER notice of the denial is issued within 45 days of the denial, setting forth the reasons for it.

(d) The Administrator may conduct a hearing under this part on his own motion.

§ 557.7 Public hearing.

If the Administrator decides that a public hearing under this part is necessary, he issues a notice of public hearing in the FEDERAL REGISTER, to advise interested persons of the time, place, and subject matter of the public hearing and invite their participation. Interested persons may submit their views through oral or written presentation, or both. There is no cross-examination of witnesses. A transcript of

the hearing is kept and exhibits may be accepted as part of the transcript. Sections 556 and 557 of title 5, U.S.C., do not apply to hearings held under this part. When appropriate, the Chief Counsel designates a member of his staff to serve as legal officer at the hearing.

§ 557.8 Determination of manufacturer's obligation.

If the Administrator determines, on the basis of the information presented at a hearing or any other information that is available to him, that the manufacturer has not reasonably met his obligation to notify owners, dealers, and purchasers of a safety-related defect or failure to comply with a Federal motor vehicle safety standard or to remedy such defect or failure to comply, he orders the manufacturer to take specified action to comply with his obligation, consistent with the authority granted the Administrator by the Act.

PART 565—VEHICLE IDENTIFICATION NUMBER—CONTENT REQUIREMENTS

Sec.

- 565.1 Purpose and scope.
- 565.2 Application.
- 565.3 Definitions.
- 565.4 General requirements.
- 565.5 Reporting requirements.

AUTHORITY: Secs. 106, 108, 112, 119, 152, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1395, 1397, 1401, 1407, and 1412); delegations of authority at 49 CFR 1.50 and 501.8.

SOURCE: 48 FR 22569, May 19, 1983, unless otherwise noted.

§ 565.1 Purpose and scope.

This regulation specifies the format and content for a vehicle identification number (VIN) system to simplify vehicle identification information retrieval and increase the accuracy and efficiency of vehicle defect recall campaigns.

§ 565.2 Applicability.

This regulation applies to passenger cars, multipurpose passenger vehicles, trucks, buses, trailers (including trailer kits), incomplete vehicles and motorcycles. Vehicles imported into the

United States under 19 CFR 12.80(b)(1)(iii), other than by a corporation which was responsible for the assembly of that vehicle or a subsidiary of such a corporation, are exempt from the requirements of this part.

§ 565.3 Definitions.

(a) **Statutory Definitions:** All terms used in this part that are defined in section 102 of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1391) are used as defined in the Act.

(b) **Motor Vehicle Safety Standard Definitions:** Unless otherwise indicated, all terms used in this part that are defined in 49 CFR 571.115 are used as defined therein.

(c) **"Body Type"** means the general configuration or shape of a vehicle distinguished by such characteristics as the number of doors or windows, cargo-carrying features and the roofline (e.g., sedan, fastback, hatchback).

(d) **"Engine Type"** means a power source with defined characteristics such as fuel utilized, number of cylinders, displacement, and net brake horsepower. The specific manufacturer and make shall be represented if the engine powers a passenger car or a multipurpose passenger vehicle, or truck with a gross vehicle weight rating of 10,000 pounds or less.

(e) **"Line"** means a name which a manufacturer applies to a family of vehicles within a make which have a degree of commonality in construction, such as body, chassis or cab type.

(f) **"Make"** means a name which a manufacturer applies to a group of vehicles or engines.

(g) **"Model"** means a name which a manufacturer applies to a family of vehicles of the same type, make, line, series, and body type.

(h) **"Model Year"** means the year used to designate a discrete vehicle model irrespective of the calendar year in which the vehicle was actually produced, so long as the actual period is less than two calendar years.

(i) **"Plant of manufacture"** means the plant where the manufacturer affixes the VIN.

(j) **"Series"** means a name which a manufacturer applies to a subdivision of a "line" denoting price, size or

weight identification, and which is utilized by the manufacturer for marketing purposes.

(k) **"Type"** means a class of vehicle distinguished by common traits, including design and purpose. Passenger cars, multipurpose passenger vehicles, trucks, buses, trailers, incomplete vehicles, and motorcycles are separate types.

§ 565.4 General requirements.

The VIN shall consist of four sections of characters which shall be grouped accordingly:

(a) The first section shall consist of three characters which occupy positions one through three (1-3) in the VIN. This section shall uniquely identify the manufacturer, make and type of the motor vehicle if its manufacturer produces 500 or more motor vehicles of its type annually. If the manufacturer produces less than 500 motor vehicles of its type annually, those three characters along with the third, fourth and fifth characters of the fourth section shall uniquely identify the manufacturer, make and type of the motor vehicle. These characters are assigned in accordance with § 565.5(c) of this part.

(b) The second section shall consist of five characters which occupy positions four through eight (4-8) in the VIN. This section shall uniquely identify the attributes of the vehicle as specified in Table I. For passenger cars, and for multipurpose passenger vehicles and trucks with a gross vehicle weight rating of 10,000 pounds or less, the first and second characters shall be alphabetic and the third and fourth characters shall be numeric. The fifth character may be either alphabetic or numeric. The characters utilized and their placement within the section may be determined by the manufacturer, but the specified attributes must be decipherable with information supplied by the manufacturer in accordance with § 565.5(d) of this part. In submitting the required information to the NHTSA relating to gross vehicle weight rating, the designations in Table II shall be utilized. The use of these designations within the VIN itself is not required.

TABLE I—TYPE OF VEHICLE AND INFORMATION DECIPHERABLE

Passenger car: Line, series, body type, engine type,¹ and restraint system type.
 Multi-purpose passenger vehicle: Line, series, body type, engine type,¹ gross vehicle weight rating.
 Truck: Model or line, series, chassis, cab type, engine type,¹ brake system and gross vehicle weight rating.
 Bus: Model or line, series, body type, engine type,¹ and brake system.
 Trailer, including trailer kit: Type of trailer, series, body type, length, and axle configuration.¹
 Motorcycle: Type of motorcycle, line, engine type,¹ and net brake horsepower.¹
 Incomplete vehicle: Model or line, series, cab type, engine type,¹ and brake system.

TABLE II—GROSS VEHICLE WEIGHT RATING CLASSES

Class A.....	Not greater than 3,000 pounds.
Class B.....	3,001-4,000 pounds.
Class C.....	4,001-5,000 pounds.
Class D.....	5,001-6,000 pounds.
Class E.....	6,001-7,000 pounds.
Class F.....	7,001-8,000 pounds.
Class G.....	8,001-9,000 pounds.
Class H.....	9,001-10,000 pounds.
Class 3.....	10,001-14,000 pounds.
Class 4.....	14,001-16,000 pounds.
Class 5.....	16,001-19,500 pounds.
Class 6.....	19,501-26,000 pounds.
Class 7.....	26,001-33,000 pounds.
Class 8.....	33,001 pounds and over.

(c) The third section shall consist of one character which occupies position nine (9) in type VIN. This section shall be the check digit whose purpose is to provide a means for verifying the accuracy of any VIN transcription. After all other characters in VIN have been determined by the manufacturer, the check digit shall be calculated by carrying out the mathematical computa-

tion specified in paragraphs (c) (1) through (4) of this section.

(1) Assign to each number in the VIN its actual mathematical value and assign to each letter the value specified for it in Table III.

TABLE III—ASSIGNED VALUES

A=1	J=1	T=3
B=2	K=2	U=4
C=3	L=3	V=5
D=4	M=4	W=6
E=5	N=5	X=7
F=6	P=7	Y=8
G=7	R=9	Z=9
H=8	S=2	

(2) Multiply the assigned value for each character in the VIN by the position weight factor specified in Table IV.

TABLE IV—VIN POSITION AND WEIGHT FACTOR

1st.....	8	10th.....	9
2d.....	7	11th.....	8
3d.....	6	12th.....	7
4th.....	5	13th.....	6
5th.....	4	14th.....	5
6th.....	3	15th.....	4
7th.....	2	16th.....	3
8th.....	10	17th.....	2
9th (check digit).....	0		

(3) Add the resulting products and divide the total by 11.

(4) The numerical remainder is the check digit. If the remainder is 10 the letter "X" shall be used to designate the check digit. The correct numerical remainder zero through nine (0-9) or the letter "X" shall appear in VIN position nine (9).

(5) A sample check digit calculation is shown in Table V.

¹Engine net brake horsepower when encoded in the VIN shall differ by no more than 10 percent from the actual net brake horsepower; shall, in the case of motorcycle

with an actual net brake horsepower of 2 or less, be not more than 2; and shall, in the case of a motorcycle with an actual brake horsepower greater than 2, be greater than 2.

TABLE V—CALCULATIONS OF A CHECK DIGIT

VIN Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Sample VIN	1	G	4	A	H	5	9	H	5	G	1	1	8	3	4	1	
Assigned value	1	7	4	1	8	5	9	8	5	7	1	1	8	3	4	1	
Multiply by weight factor	8	7	6	5	4	3	2	10	0	9	8	7	6	5	4	3	2
Add products	8 + 49 + 24 + 5 + 32 + 15 + 18 + 80 + 0 + 45 + 56 + 7 + 6 + 40 + 12 + 12 + 2 = 411																
Divide sum of products by 11	411/11 = 37.4																
Remainder is check digit #4	[insert in VIN position nine (9)]																

(d) The fourth section shall consist of eight characters which occupy positions ten through seventeen (10-17) of the VIN. The last five (5) characters of this section shall be numeric for passenger cars, and for multi-purpose passenger vehicles and trucks with a gross vehicle weight rating of 10,000 pounds or less, and the last four (4) characters shall be numeric for all other vehicles.

(1) The first character of the fourth section shall represent the vehicle model year. The year shall be designated as indicated in Table VI.

TABLE VI

Year	Code	Year	Code
1980	A	1997	V
1981	B	1998	W
1982	C	1999	X
1983	D	2000	Y
1984	E	2001	1
1985	F	2002	2
1986	G	2003	3
1987	H	2004	4
1988	J	2005	5
1989	K	2006	6
1990	L	2007	7
1991	M	2008	8
1992	N	2009	9
1993	P	2010	A
1994	R	2011	B
1995	S	2012	C
1996	T	2013	D

(2) The second character of the fourth section shall represent the plant of manufacture.

(3) The third through the eighth characters of the fourth section shall represent the number sequentially assigned by the manufacturer in the production process if the manufacturer produces 500 or more vehicles of its type annually. If the manufacturer produces less than 500 motor vehicles of its type annually, the third, fourth, and fifth characters of the fourth section, combined with the three characters of the first section, shall uniquely identify the manufacturer, make and type of the motor vehicle and the sixth, seventh, and eighth characters of the fourth section shall represent the number sequentially assigned by the manufacturer in the production process.

(a) Information collection requirements contained in this regulation have been approved by the Office of Management and Budget under the provisions of the Paperwork Reduction Act (Pub. L. 96-511) and have been assigned OMB Control Number 2127-0051.

§ 565.5 Reporting requirements.

(b) Manufacturers of motor vehicles subject to this regulation shall submit, either directly or through an agent, the unique identifier for each make and type of vehicle it manufactures at least 60 days before affixing the first VIN using the identifier. Manufacturers whose unique identifier appears in the fourth section of the VIN shall also submit the three characters of the first section which constitutes a part of their identifier.

(c) The NHTSA has contracted with the Society of Automotive Engineers (SAE) to coordinate the assignment of manufacturer identifiers. Manufacturer identifiers will be supplied by SAE at no charge. All requests for assignments of manufacturer identifiers should be forwarded directly to: Society of Automotive Engineers, 400 Commonwealth Avenue, Warrendale, Pennsylvania 15096, Attention: WMI Coordinator. Any requests for identifiers submitted to NHTSA will be forwarded to SAE. Manufacturers may request a specific identifier or may re-

quest only assignment of an identifier(s). SAE will review requests for specific identifiers to determine that they do not conflict with an identifier already assigned or block of identifiers already reserved. SAE will confirm the assignments in writing to the requester. Once confirmed by SAE, the identifier need not be resubmitted to the NHTSA.

(d) Manufacturers of motor vehicles subject to the requirements of this regulation shall submit to the NHTSA the information necessary to decipher the characters contained in its VIN's. Amendments to this information shall be submitted to the agency for VIN's containing an amended coding. The agency will not routinely provide written approvals of these submissions, but will contact the manufacturer should any corrections to these submissions be necessary.

(e) The information required under paragraph (d) of this section shall be submitted at least 60 days prior to offering for sale the first vehicle identified by a VIN containing that information, or if information concerning vehicle characteristics sufficient to specify the VIN Code is unavailable to the manufacturer by that date, then within one week after that information first becomes available. The information shall be addressed to: Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C. 20590, Attention: VIN Coordinator.

PART 566—MANUFACTURER IDENTIFICATION

Sec.

566.1 Scope.

566.2 Purpose.

566.3 Application.

566.4 Definitions.

566.5 Requirements.

566.6 Submittal of information.

AUTHORITY: Secs. 112 and 119, National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1401 and 1407); delegation of authority at 49 CFR 1.50, unless otherwise noted.

SOURCE: 36 FR 20978, Nov. 2, 1971, unless otherwise noted.

§ 566.1 Scope.

This part requires manufacturers of motor vehicles, and of motor vehicle equipment to which a motor vehicle safety standard applies, to submit identifying information and a description of the items they produce.

§ 566.2 Purpose.

The purpose of this part is to facilitate the regulation of manufacturers under the National Traffic and Motor Vehicle Safety Act, and to aid in establishing a code numbering system for all regulated manufacturers.

§ 566.3 Application.

This part applies to all manufacturers of motor vehicles, and to manufacturers of motor vehicle equipment, other than tires, to which a motor vehicle safety standard applies (hereafter referred to as "covered equipment").

[36 FR 22063, Nov. 19, 1971]

§ 566.4 Definitions.

All terms defined in the Act and the rules and standards issued under its authority are used as defined therein. Specifically, "incomplete vehicle," "intermediate manufacturer," and "final-stage manufacturer" are used as defined in Part 568—Vehicles Manufactured in Two or More Stages.

(15 U.S.C. 1392, 1397)

[37 FR 1364, Jan. 28, 1972]

§ 566.5 Requirements.

Each manufacturer of motor vehicles, and each manufacturer of covered equipment, shall furnish the information specified in paragraphs (a) through (c) of this section to: Administrator, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, DC 20590.

(a) Full individual, partnership, or corporate name of the manufacturer.

(b) Residence address of the manufacturer and State of incorporation if applicable.

(c) Description of each type of motor vehicle or of covered equipment manufactured by the manufacturer, including, for motor vehicles, the approxi-

mate ranges of gross vehicle weight ratings for each type.

(1) Except as noted below, the description may be of general types, such as "passenger cars" or "brake fluid."

(2) In the case of multipurpose passenger vehicles, trucks, and trailers, the description shall be specific enough also to indicate the types of use for which the vehicles are intended, such as "tank trailer," "motor home," or "cargo van."

(3) In the case of motor vehicles produced in two or more stages, if the manufacturer is an incomplete vehicle manufacturer, the description shall so state and include a description indicating the stage of completion of the vehicle and, where known, the types of use for which the vehicle is intended.

EXAMPLE: "Incomplete vehicle manufacturer—Chassis-cab intended for completion as van-type truck."

If the manufacturer is an intermediate manufacturer, or a final stage manufacturer, the description shall so state and include a brief description of the work performed.

EXAMPLE: "Multipurpose passenger vehicles: Motor homes with GVWR from 8,000 to 12,000 pounds. Final-stage manufacturer—add body to bare chassis."

(15 U.S.C. 1392, 1397)

[36 FR 20978, Nov. 2, 1971, as amended at 37 FR 1364, Jan. 28, 1972]

§ 566.6 Submittal of information.

Each manufacturer required to submit information under § 566.4 shall submit the information not later than February 1, 1972. After that date, each person who begins to manufacture a type of motor vehicle or covered equipment for which he has not submitted the required information shall submit the information specified in paragraphs (a) through (c) of § 566.4 not later than 30 days after he begins manufacture. Each manufacturer who has submitted required information shall keep his entry current, accurate and complete by submitting revised information not later than 30 days after the relevant changes in his business occur.

PART 567—CERTIFICATION

Sec.

567.1 Purpose and scope.

567.2 Application.

567.3 Definitions.

567.4 Requirements for manufacturers of motor vehicles.

567.5 Requirements for manufacturers of vehicles manufactured in two or more stages.

567.6 Requirements for persons who do not alter certified vehicles or do so with readily attachable components.

567.7 Requirements for persons who alter certified vehicles.

AUTHORITY: Secs. 103, 112, 114, and 119, National Traffic and Motor Vehicle Safety Act, 15 U.S.C. 1392, 1401, 1403, and 1407; delegation of authority at 49 CFR 1.50, unless otherwise noted.

SOURCE: 36 FR 7056, Apr. 14, 1971, unless otherwise noted.

CROSS REFERENCE: For a ruling concerning unavailable weight ratings, see 36 FR 25013, Dec. 28, 1971.

§ 567.1 Purpose and scope.

The purpose of this part is to specify the content and location of, and other requirements for, the label or tag to be affixed to motor vehicles required by section 114 of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1403) (the Act) and by section 105(c)(1) of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1915(c)(1)) (the Cost Savings Act), and to provide the consumer with information to assist him in determining which of the Federal Motor Vehicle Safety Standards (Part 571 of this chapter) (Standards) are applicable to the vehicle.

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); secs. 102, 105, Pub. L. 92-513, 86 Stat. 947 (15 U.S.C. 1912, 1915); delegation of authority at 49 CFR 1.50)

[43 FR 21891, May, 22, 1978]

§ 567.2 Application.

(a) This part applies to manufacturers and distributors of motor vehicles to which one or more standards are applicable.

(b) In the case of imported motor vehicles, the requirement of affixing a label or tag applies to importers of vehicles admitted to the United States

under 19 CFR 12.80(b)(1) to which the required label or tag is not affixed.

(Secs. 103, 112, 114, 119, National Traffic and Motor Vehicle Safety Act 15 U.S.C. 1392, 1401, 1403, and 1417; delegations of authority at 49 CFR 1.50 and 501.7)

[36 FR 7056, Apr. 14, 1971, as amended at 48 FR 46995, Oct. 17, 1983]

§ 567.3 Definitions.

All terms that are defined in the Act and the rules and standards issued under its authority are used as defined therein. The term "bumper" has the meaning assigned to it in Title I of the Cost Savings Act and the rules and standards issued under its authority.

"Chassis-cab" means an incomplete vehicle, with a completed occupant compartment, that requires only the addition of cargo-carrying, work-performing, or load-bearing components to perform its intended functions.

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 713 (15 U.S.C. 1392, 1407); secs. 102, 105, Pub. L. 92-513, 86 Stat. 947 (15 U.S.C. 1912, 1915); delegation of authority at 49 CFR 1.50)

[36 FR 7056, Apr. 14, 1971, as amended at 42 FR 37817, July 25, 1977; 43 FR 21891, May 22, 1978]

§ 567.4 Requirements for manufacturers of motor vehicles.

(a) Each manufacturer of motor vehicles (except vehicles manufactured in two or more stages) shall affix to each vehicle a label, of the type and in the manner described below, containing the statements specified in paragraph (g) of this section.

(b) The label shall, unless riveted, be permanently affixed in such a manner that it cannot be removed without destroying or defacing it.

(c) Except for trailers and motorcycles, the label shall be affixed to either the hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position, or if none of these locations is practicable, to the left side of the instrument panel. If that location is also not practicable, the label shall be affixed to the inward-facing surface of the door next to the driver's seating position. If none of the preceding locations is practicable, notification of that fact, together with drawings or photographs showing a sug-

gested alternate location in the same general area, shall be submitted for approval to the Administrator, National Highway Traffic Safety Administration, Washington, D.C. 20590. The location of the label shall be such that it is easily readable without moving any part of the vehicle except an outer door.

(d) The label for trailers shall be affixed to a location on the forward half of the left side, such that it is easily readable from outside the vehicle without moving any part of the vehicle.

(e) The label for motorcycles shall be affixed to a permanent member of the vehicle as close as is practicable to the intersection of the steering post with the handle bars, in a location such that it is easily readable without moving any part of the vehicle except the steering system.

(f) The lettering on the label shall be of a color that contrasts with the background of the label.

(g) The label shall contain the following statements, in the English language, lettered in block capitals and numerals not less than three thirty-seconds of an inch high, in the order shown:

(1) Name of manufacturer: Except as provided in paragraphs (g)(1) (i), (ii), and (iii) of this section, the full corporate or individual name of the actual assembler of the vehicle shall be spelled out, except that such abbreviations as "Co." or "Inc." and their foreign equivalents, and the first and middle initials of individuals, may be used. The name of the manufacturer shall be preceded by the words "Manufactured By" or "Mfd By." In the case of imported vehicles, where the label required by this section is affixed by a person other than the final assembler of the vehicle, the corporate or individual name of the person affixing the label shall also be placed on the label in the manner described in this paragraph, directly below the name of the final assembler.

(i) If a vehicle is assembled by a corporation that is controlled by another corporation that assumes responsibility for conformity with the standards, the name of the controlling corporation may be used.

(ii) If a vehicle is fabricated and delivered in complete but unassembled form, such that it is designed to be assembled without special machinery or tools, the fabricator of the vehicle may affix the label and name itself as the manufacturer for the purposes of this section.

(iii) If a trailer is sold by a person who is not its manufacturer, but who is engaged in the manufacture of trailers and assumes legal responsibility for all duties and liabilities imposed by the Act with respect to that trailer, the name of that person may appear on the label as the manufacturer. In such a case the name shall be preceded by the words "Responsible Manufacturer" or "Resp Mfr."

(2) Month and year of manufacture: This shall be the time during which work was completed at the place of main assembly of the vehicle. It may be spelled out, as "June 1970", or expressed in numerals, as "6/70."

(3) "Gross Vehicle Weight Rating" or "GVWR," followed by the appropriate value in pounds, which shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 150 pounds times the vehicle's designated seating capacity. However, for school buses the minimum occupant weight allowance shall be 120 pounds.

(4) "Gross Axle Weight Rating" or "GAWR," followed by the appropriate value in pounds for each axle, identified in order from front to rear (e.g., front, first intermediate, second intermediate, rear). The ratings for any consecutive axles having identical gross axle weight ratings when equipped with tires having the same tire size designation may, at the option of the manufacturer, be stated as a single value, with label indicating to which axles the ratings apply.

EXAMPLES OF COMBINED RATINGS

GAWR: (a) All axles—4080 with 7.00-15 LT (D) tires.

(b) Front—12,000 with 10.00-20(G) tires.
First intermediate to rear—15,000 with 12.00-20(H) tires.

(5) The statement: "This vehicle conforms to all applicable Federal motor vehicle safety standards in effect on the date of manufacture shown above." The expression "U.S."

or "U.S.A." may be inserted before the word "Federal." However, in the case of passenger cars, the expression "and bumper"—

(i) May, at the option of the manufacturer, be included in the statement following the word "safety"; and

(ii) Shall be included in the statement following the word "safety" in the case of passenger cars manufactured on or after September 1, 1978.

(6) Vehicle identification number.

(7) The type classification of the vehicle as defined in § 571.3 of this chapter (e.g., truck, MPV, bus, trailer).

(h) Multiple GVWR-GAWR ratings.

(1) (For passenger cars only) In cases where different tire sizes are offered as a customer option, a manufacturer may at his option list more than one set of values for GVWR and GAWR, in response to the requirements of paragraphs (g) (3) and (4) of this section. If the label shows more than one set of weight rating values, each value shall be followed by the phrase "with — tires," inserting the proper tire size designations. A manufacturer may at his option list one or more tire sizes where only one set of weight ratings is provided.

Passenger Car Example

GVWR:

4400 LB with G78-14B Tires. 4800 LB with H78-14B Tires.

GAWR:

Front—2000 LB with G78-14B Tires at 24 psi. 2200 LB with H78-14B Tires at 24 psi.

Rear—2400 LB with G78-14B Tires at 28 psi. 2600 LB with H78-14B Tires at 28 psi.

(2) (For multipurpose passenger vehicles, trucks, buses, trailers, and motorcycles) The manufacturer may, at its option, list more than one GVWR-GAWR-tire-rim-combination on the label, as long as the listing conforms in content and format to the requirements for tire-rim-inflation information set forth in Standard No. 120 of this chapter (§ 571.120).

(3) At the option of the manufacturer, additional GVWR-GAWR ratings for operation of the vehicle at reduced speeds may be listed at the bottom of the certification label following any information that is required to be listed.

(i) [Reserved]

(j) A manufacturer may, at his option, provide information concerning which tables in the document that accompanies the vehicle pursuant to § 575.6(a) of this chapter apply to the vehicle. This information may not precede or interrupt the information required by paragraph (g) of this section.

[36 FR 7056, Apr. 14, 1971, as amended at 36 FR 23572, Dec. 10, 1971; 41 FR 3479, Jan. 23, 1976; 41 FR 13923, Apr. 1, 1976; 42 FR 7144, Feb. 7, 1977; 42 FR 31162, June 20, 1977; 42 FR 37371, July 21, 1977; 42 FR 37817, July 25, 1977; 43 FR 21891, May 22, 1978]

§ 567.5 Requirements for manufacturers of vehicles manufactured in two or more stages.

(a) Except as provided in paragraph (e) of this section, each manufacturer of a chassis-cab shall affix a label to each chassis-cab manufactured on or after July 25, 1978, in the location and form specified in § 567.4, that contains the following statements to the extent that they are applicable.

(1) "This chassis-cab conforms to Federal Motor Vehicle Safety Standard Nos. ———." The statement shall be completed by inserting the numbers of the safety standards (e.g., 101, 207) to which the chassis-cab conforms.

(2) "This vehicle will conform to Standard Nos. ——— if it is completed in accordance with the instructions contained in the incomplete vehicle document furnished pursuant to 49 CFR Part 568." The statement shall be completed by inserting the numbers of the safety standards conformity to which is substantially affected by both the design of the chassis-cab and the manner in which the vehicle is completed (i.e., the standards listed under category (ii) in § 568.4(a)(7) of this chapter).

(3) "Conformity to the other safety standards applicable to this vehicle when completed is not substantially affected by the design of the chassis-cab."

(4) Name of chassis-cab manufacturer preceded by the words "CHASSIS-CAB MANUFACTURED BY" or "CHASSIS-CAB MFD BY".

(5) Month and year of manufacture of chassis-cab. This may be spelled out, as in "JUNE 1970", or expressed in numerals, as in "6/70". No preface is required.

(b) Except as provided in paragraphs (e) and (f) of this section, each intermediate manufacturer of a vehicle manufactured in two or more stages shall affix a label, in the location and form specified in § 567.4, to each chassis-cab respecting which he is required by § 568.5 to furnish an addendum to the incomplete vehicle document described in § 568.4. However, this paragraph applies only to chassis-cabs that have been certified by a chassis-cab manufacturer in accordance with paragraph (a) of this section. The label shall contain the following statements as appropriate.

(1) (i) "With respect to Standard Nos. ———, the instructions of prior manufacturers have been followed so that the chassis-cab now conforms to these standards." The statement shall be completed by inserting the numbers of all or less than all of the standards, and only those standards, respecting which the latest prior certification statement was in the form prescribed in paragraphs (a)(2) or (b)(2) of this section.

(ii) "This chassis-cab conforms to Federal Motor Vehicle Safety Standard Nos. ———." The statement shall be completed by inserting the numbers of the other standards to which the chassis-cab conforms, excluding those standards respecting which the latest prior certification statement was in the form prescribed in paragraphs (a)(1), (b)(1)(i), or this paragraph.

(2) "This vehicle will conform to Standard Nos. ——— if it is completed in accordance with the instructions contained in the amended incomplete vehicle document furnished pursuant to 49 CFR Part 568." The statement shall be completed by inserting the numbers of the standards conformity to which is substantially affected by both the design of the chassis-cab (as modified by the intermediate manufacturer) and the manner in which the vehicle is completed.

(3) "Conformity to Standard Nos. ——— is no longer substantially affected by the design of this chassis-cab."

The statement shall be completed by inserting the numbers of all or less than all of the standards, and only those standards, respecting which the latest prior certification statement was in the form prescribed in paragraphs (a) (1) and (2), (b)(1) (i) and (ii), or (b)(2) of this section.

(4) Name of intermediate manufacturer, preceded by the words "INTERMEDIATE MANUFACTURE BY" or "INTERMEDIATE MFR BY".

(5) Month and year in which the intermediate manufacturer performed his last manufacturing operation on the chassis-cab. This may be spelled out, as "JUNE 1970", or expressed as numerals, as "6/70". No preface is required.

(c) Except as provided in paragraphs (e) and (f) of this section, each final-stage manufacturer, as defined in § 568.3 of Title 49 of the CFR, of a vehicle manufactured in two or more stages shall affix to each vehicle a label, of the type and in the manner and form described in § 567.4 of this part, containing the following statements:

(1) Name of final-stage manufacturer, preceded by the words "MANUFACTURED BY" or "MFD BY".

(2) Month and year in which final-stage manufacture is completed. This may be spelled out, as in "JUNE 1970", or expressed in numerals, as in "6/70". No preface is required.

(3) Name of original manufacturer of the incomplete vehicle, preceded by the words "INCOMPLETE VEHICLE MANUFACTURED BY" or "INC VEH MFD BY". This item and item (4) may be omitted in cases where the incomplete vehicle was a chassis-cab.

(4) Month and year in which the original manufacturer of the incomplete vehicle performed his last manufacturing operation on the incomplete vehicle, in the same form as paragraph (c)(2) of this section.

(5) "GROSS VEHICLE WEIGHT RATING" or "GVWR", followed by the appropriate value in pounds, which shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 150 pounds times the vehicle's designated seating capacity. However, for school buses the mini-

mum occupant weight allowance shall be 120 pounds.

(6) "GROSS AXLE WEIGHT RATING" or "GAWR", followed by the appropriate value in pounds for each axle, identified in order from front to rear (e.g., front, first intermediate, second intermediate, rear). The ratings for any consecutive axles having identical gross axle weight ratings when equipped with tires having the same tire size designation may be stated as a single value, with the label indicating to which axles the rating applies.

EXAMPLES OF COMBINED RATINGS

GAWR: (a) All axles—4080 with 7.00-15 LT(D) tires; (b) Front—12,000 with 10.00-20(G) tires. First intermediate to rear—15 000 with 12.00-20(H) tires.

(7) One of the following statements as appropriate. Statements (i), (ii), and (iii) are alternative certification statements. Statement (i) may be used by manufacturers meeting the requirements described in the instruction portion of that paragraph. Statements (ii) and (iii) may be used by any final-stage manufacturer.

(i) "Conformity of the chassis-cab to Federal Motor Vehicle Safety Standards, which have been previously fully certified by the incomplete vehicle manufacturer or intermediate vehicle manufacturer, has not been affected by final-stage manufacture. The vehicle has been completed in accordance with the prior manufacturer's instructions, where applicable. This vehicle conforms to all other applicable Federal Motor Vehicle Safety Standards in effect in (month, year)."

The preceding statement shall be used only in cases in which the final-stage manufacturer has: (A) Not affected conformity to standards compliance with which has been fully certified by a chassis-cab manufacturer pursuant to paragraph (a)(1) of this section or by an intermediate manufacturer pursuant to paragraphs (b)(1)(i) or (b)(1)(ii) of this section, and (B) has completed the vehicle in accordance with the prior manufacturer's instructions in regard to standards listed, as appropriate, in a chassis-cab manufacturer's conditional statement

under paragraph (a)(2) of this section or in an intermediate manufacturer's conditional statement under paragraph (b)(2) of this section. The date shown in the third sentence of the statement shall be not earlier than the manufacturing date of the incomplete vehicle, and not later than the date of completion of final-stage manufacture.

(ii) "Conformity of the chassis-cab to Federal Motor Vehicle Safety Standards Nos. _____ has not been affected by final stage manufacture. With respect to Standards Nos. _____, the vehicle has been completed in accordance with the prior manufacturer's instructions. This vehicle conforms to all other applicable Federal Motor Vehicle Safety Standards in effect in (month, year)."

The first sentence of the preceding statement shall be completed by inserting the numbers of all or less than all of the standards, and only those standards, respecting which the latest prior certification statement was made by a chassis-cab manufacturer pursuant to paragraph (a)(1) of this section or by an intermediate manufacturer pursuant to paragraphs (b)(1)(i) or (b)(1)(ii) of this section. The second sentence of the statement shall be completed by inserting the numbers of all or less than all of the standards and only those standards, respecting which the latest prior certification statement was a chassis-cab manufacturer's conditional statement under paragraph (a)(2) of this section or an intermediate manufacturer's conditional statement under paragraph (b)(2) of this section. The date shown in the third sentence of the statement shall be not earlier than the manufacturing date of the incomplete vehicle, and not later than the date of completion of final-stage manufacture.

(iii) "This vehicle conforms to all applicable Federal Motor Vehicle Safety Standards in effect in (month, year)."

The date shown shall be not earlier than the manufacturing date of the incomplete vehicle and not later than the date of completion of final-stage manufacture.

(8) Vehicle identification number.

(9) The type classification of the vehicle as defined in § 571.3 of Title 49 of

the CFR (e.g., truck MPV, bus, trailer).

(d) More than one set of figures for GVWR and GAWR, and one or more tire sizes, may be listed in satisfaction of the requirements of paragraphs (c) (5) and (6) of this section, as provided in § 567.4(h).

(e) If an incomplete vehicle manufacturer assumes legal responsibility for all duties and liabilities imposed by the Act, with respect to the vehicle as finally manufactured, the incomplete vehicle manufacturer shall ensure that a label is affixed to the final vehicle in conformity with paragraph (c) of this section, except that the name of the incomplete vehicle manufacturer shall appear instead of the name of the final-stage manufacturer after the words "MANUFACTURED BY" or "MFD BY" required by paragraph (c)(1) of this section, the additional manufacturer's name required by paragraph (c)(3) of this section shall be omitted, and the date required by paragraph (c)(4) of this section shall be preceded by the words "INCOMPLETE VEHICLE MANUFACTURED" or "INC VEH MFD."

(f) If an intermediate manufacturer of a vehicle assumes legal responsibility for all duties and liabilities imposed on manufacturers by the Act, with respect to the vehicle as finally manufactured, the intermediate manufacturer shall ensure that a label is affixed to the final vehicle in conformity with paragraph (c) of this section, except that the name of the intermediate manufacturer shall appear instead of the name of the final-stage manufacturer after the words "MANUFACTURED BY" or "MFD BY" required by paragraph (c)(1) of this section.

(Secs. 103, 108, 112, 114, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1397, 1401, 1403, 1407); delegation of authority at 49 CFR 1.50; secs. 103, 108, 114, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1397, 1401, 1403, 1407); delegations of authority at 49 CFR 1.50 and 501.7)

(42 FR 37817, July 25, 1977; 42 FR 48927, Sept. 19, 1977, as amended at 43 FR 9605, Mar. 3, 1978; 43 FR 12014, Mar. 23, 1978; 43 FR 29124, July 6, 1978; 48 FR 51309, Nov. 8, 1983)

§ 567.6 Requirements for persons who do not alter certified vehicles or do so with readily attachable components.

A person who does not alter a motor vehicle or who alters such a vehicle only by the addition, substitution, or removal of readily attachable components such as mirrors or tires and rim assemblies, or minor finishing operations such as painting, in such a manner that the vehicle's stated weight ratings are still valid, need not affix a label to the vehicle, but shall allow a manufacturer's label that conforms to the requirements of this part to remain affixed to the vehicle. If such a person is a distributor of the motor vehicle, allowing the manufacturer's label to remain affixed to the vehicle shall satisfy the distributor's certification requirements under the Act.

[38 FR 15962, June 19, 1973]

§ 567.7 Requirements for persons who alter certified vehicles.

A person who alters a vehicle that has previously been certified in accordance with § 597.4 or § 567.5, other than by the addition, substitution, or removal of readily attachable components such as mirrors or tire and rim assemblies, or minor finishing operations such as painting, or who alters the vehicle in such a manner that its stated weight ratings are no longer valid, before the first purchase of the vehicle in good faith for purposes other than resale, shall allow the original certification label to remain on the vehicle, and shall affix to the vehicle an additional label of the type and in the manner and form described in § 567.4, containing the following information:

(a) The statement: "This vehicle was altered by (individual or corporate name) in (month and year in which alterations were completed) and as altered it conforms to all applicable Federal Motor Vehicle Safety Standards affected by the alteration and in effect in (month, year)." The second date shall be no earlier than the manufacturing date of the original vehicle, and no later than the date alterations were completed. However, in the case of

passenger cars, the expression "and bumper";

(1) May, at the option of the manufacturer, be included in the statement following the word "safety"; and

(2) Shall be included in the statement following the word "safety" in the case of passenger cars manufactured on or after September 1, 1978.

(b) If the gross vehicle weight rating or any of the gross axle weight ratings of the vehicle as altered are different from those shown on the original certification label, the modified values shall be provided in the form specified in § 567.4(g) (3) and (5).

(c) If the vehicle as altered has a different type classification from that shown on the original certification label, the type as modified shall be provided.

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); secs. 102, 105, Pub. L. 92-513, 86 Stat. 947 (15 U.S.C. 1912, 1915); delegation of authority at 49 CFR 1.50)

[38 FR 15963, June 19, 1973, as amended at 43 FR 21891, May 22, 1978; 45 FR 18929, Mar. 24, 1980]

PART 568—VEHICLES MANUFACTURED IN TWO OR MORE STAGES

Sec.

568.1 Purpose and scope.

568.2 Application.

568.3 Definitions.

568.4 Requirements for incomplete vehicle manufacturers.

568.5 Requirements for intermediate manufacturers.

568.6 Requirements for final-stage manufacturers.

568.7 Requirements for manufacturers who assume legal responsibility for the vehicle.

568.8 Requirements for persons who alter certified vehicles.

AUTHORITY: Secs. 103, 112, 114, and 119, National Traffic and Motor Vehicle Safety Act, 15 U.S.C. 1392, 1401, 1403, and 1407; delegation of authority at 49 CFR 1.50.

SOURCE: 36 FR 7057, Apr. 14, 1971, unless otherwise noted.

§ 568.1 Purpose and scope.

The purpose of this part is to prescribe the method by which manufacturers of vehicles manufactured in two or more stages shall ensure conformity of those vehicles with the Federal

motor vehicle safety standards ("standards") and other regulations issued under the National Traffic and Motor Vehicle Safety Act.

§ 568.2 Application.

This part applies to incomplete vehicle manufacturers, intermediate manufacturers, and final-stage manufacturers of vehicles manufactured in two or more stages.

§ 568.3 Definitions.

"Completed vehicle" means a vehicle that requires no further manufacturing operations to perform its intended function, other than the addition of readily attachable components, such as mirrors or tire and rim assemblies, or minor finishing operations such as painting.

"Final-stage manufacturer" means a person who performs such manufacturing operations on an incomplete vehicle that it becomes a completed vehicle.

"Incomplete vehicle" means an assemblage consisting, as a minimum, of frame and chassis structure, power train, steering system, suspension system, and braking system, to the extent that those systems are to be part of the completed vehicle, that requires further manufacturing operations, other than the addition of readily attachable components, such as mirrors or tire and rim assemblies, or minor finishing operations such as painting, to become a completed vehicle.

"Intermediate manufacturer" means a person, other than the incomplete vehicle manufacturer or the final-stage manufacturer, who performs manufacturing operations on an incomplete vehicle.

"Incomplete vehicle manufacturer" means a person who manufactures an incomplete vehicle by assembling components none of which, taken separately, constitute an incomplete vehicle.

[36 FR 7057, Apr. 14, 1971, as amended at 37 FR 10938, June 1, 1972]

§ 568.4 Requirements for incomplete vehicle manufacturers.

(a) The incomplete vehicle manufacturer shall furnish with the incom-

plete vehicle, at or before the time of delivery, a document that contains the following statements, in the order shown, and any other information required by this chapter to be included therein.

(1) Name and mailing address of the incomplete vehicle manufacturer.

(2) Month and year during which the incomplete vehicle manufacturer performed his last manufacturing operation on the incomplete vehicle.

(3) Identification of the incomplete vehicle(s) to which the document applies. The identification may be by serial number, groups of serial numbers, or otherwise, but it must be sufficient to ascertain positively that a document applies to a particular incomplete vehicle after the document has been removed from the vehicle.

(4) Gross vehicle weight rating of the completed vehicle for which the incomplete vehicle is intended.

(5) Gross axle weight rating for each axle of the completed vehicle, listed and identified in order from front to rear (e.g., front, first intermediate, second intermediate, rear). The ratings for any consecutive axles having identical gross axle weight ratings when equipped with tires having the same tire size designation may, at the option of the incomplete vehicle manufacturer, be stated as a single value, with the label indicating to which axles the ratings apply.

EXAMPLE OF COMBINED RATINGS

GAWR: (a) All axles—4000 with 7.00-15 LT(D) tires.

(b) Front—12,000 with 10.00-20(G) tires.

First intermediate to rear—15,000 with 12.00-20(H) tires.

(6) Listing of the vehicle types as defined in § 571.3 of this chapter (e.g., truck, MPV, bus, trailer) into which the incomplete vehicle may appropriately be manufactured.

(7) Listing by number of each standard, in effect at the time of manufacture of the incomplete vehicle, that applies to any of the vehicle types listed in this paragraph (a)(6) of this section, followed in each case by one of the following three types of statement, as applicable:

(i) A statement that the vehicle when completed will conform to the

standard if no alterations are made in identified components of the incomplete vehicle.

EXAMPLE 107—This vehicle when completed will conform to Standard 107 (see § 571.107 of this chapter), Reflecting Surfaces, if no alterations are made in the windshield wiper components or in the reflecting surfaces in the interior of the cab.

(ii) A statement of specific conditions of final manufacture under which the manufacturer specifies that the completed vehicle will conform to the standard.

EXAMPLE 121—This vehicle when completed will conform to Standard 121, Airbrake Systems (see § 571.121 of this chapter), if it does not exceed any of the gross axle weight ratings, if the center of gravity at GVWR is not higher than nine feet above the ground, and if no alterations are made in any brake system component.

(iii) A statement that conformity with the standard is not substantially affected by the design of the incomplete vehicle, and that the incomplete vehicle manufacturer makes no representation as to conformity with the standard.

(b) The document shall be attached to the incomplete vehicle in such a manner that it will not be inadvertently detached, or alternatively, it may be sent directly to a final-stage manufacturer, intermediate manufacturer or purchaser for purposes other than resale to whom the incomplete vehicle is delivered.

[36 FR 7057, Apr. 14, 1971, as amended at 42 FR 31163, June 20, 1977; 42 FR 37371, July 21, 1977; 42 FR 37816, July 25, 1977]

§ 568.5 Requirements for intermediate manufacturers.

(a) Each intermediate manufacturer of an incomplete vehicle shall furnish the document required by § 568.4 in the manner specified in that section. If any of the changes in the vehicle made by the intermediate manufacturer affect the validity of the statements in the document as provided to him he shall furnish an addendum to the document that contains his name and mailing address and an indication of all changes that should be made in the document to reflect changes that he made in the vehicle.

(b) Each intermediate manufacturer shall, in accordance with § 567.5 of this chapter, affix a label to each chassiscab respecting which he is required by paragraph (a) above to furnish an addendum to the document required by § 568.4.

(Secs. 103, 108, 112, 114, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1397, 1401, 1403, 1407); delegation of authority at 49 CFR 1.50)

[43 FR 9605, Mar. 9, 1978]

§ 568.6 Requirements for final-stage manufacturers.

(a) Each final-stage manufacturer shall complete the vehicle in such a manner that it conforms to the standards in effect on the date of manufacture of the incomplete vehicle, the date of final completion, or a date between those two dates. This requirement shall, however, be superseded by any conflicting provisions of a standard that applies by its terms to vehicles manufactured in two or more stages.

(b) Each final-stage manufacturer shall affix a label to the completed vehicle in accordance with § 567.5 of this chapter.

[36 FR 7057, Apr. 14, 1971, as amended at 42 FR 37817, July 25, 1977]

§ 568.7 Requirements for manufacturers who assume legal responsibility for the vehicle.

(a) If an incomplete vehicle manufacturer assumes legal responsibility for all duties and liabilities imposed on manufacturers by the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1381-1425) (hereafter referred to as the Act), with respect to the vehicle as finally manufactured, the requirements of §§ 568.4, 568.5 and 568.6(b) do not apply to that vehicle. In such a case, the incomplete vehicle manufacturer shall ensure that a label is affixed to the final vehicle in conformity with § 567.5(e) of this chapter.

(b) If an intermediate manufacturer of a vehicle assumes legal responsibility for all duties and liabilities imposed on manufacturers by the Act, with respect to the vehicle as finally manufactured, §§ 568.5 and 568.6(b) do not apply to that vehicle. In such a

case, the manufacturer assuming responsibility shall ensure that a label is affixed to the final vehicle in conformity with § 567.5(f) of this chapter. The assumption of responsibility by an intermediate manufacturer does not, however, change the requirements for incomplete vehicle manufacturers in § 568.4.

[36 FR 7057, Apr. 14, 1971, as amended at 42 FR 37817, July 25, 1977]

§ 568.8 Requirements for persons who alter certified vehicles.

A person who alters a vehicle that has been previously certified in accordance with § 567.4 or § 567.5, other than by the addition, substitution, or removal of readily attachable components such as mirrors or tire and rim assemblies, or minor finishing operations such as painting, or who alters a vehicle in such a manner that its stated weight ratings are no longer valid, before the first purchase of the vehicle in good faith for purposes other than resale, shall ascertain that the vehicle as altered conforms to the standards which are affected by the alteration and are in effect on the original date of manufacture of the vehicle, the date of final completion, or a date between those two dates. That person shall certify the vehicle in accordance with § 567.7 of this chapter.

[45 FR 18929, Mar. 24, 1980]

PART 569—REGROOVED TIRES

Sec.

569.1 Purpose and scope.

569.3 Definitions.

569.5 Applicability.

569.7 Requirements.

569.9 Labeling of regroovable tires.

AUTHORITY: Secs. 119, 204, 80 Stat. 728, 729; 15 U.S.C. 1407, 1424, and Secretary's Delegation of Authority, 49 CFR 1.4(c).

SOURCE: 34 FR 1150, Jan. 24, 1969, unless otherwise noted. Redesignated at 35 FR 5118, Mar. 26, 1970.

§ 569.1 Purpose and scope.

This part sets forth the conditions under which regrooved and regroovable tires manufactured or regrooved after the effective date of the regulation may be sold, offered for sale, in-

troduced for sale or delivered for introduction into interstate commerce.

[42 FR 21613, Apr. 28, 1977]

§ 569.3 Definitions.

(a) **Statutory definitions.** All terms used in this part that are defined in section 102 of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1391) are used as defined in the Act.

(b) **Motor Vehicle Safety Standard definitions.** Unless otherwise indicated, all terms used in this part that are defined in the Motor Vehicle Safety Standards, Part 571, of this subchapter (hereinafter "The Standards"), are used as defined therein without regard to the applicability of a standard in which a definition is contained.

(c) **"Regroovable tire"** means a tire, either original tread or retread, designed and constructed with sufficient tread material to permit renewal of the tread pattern or the generation of a new tread pattern in a manner which conforms to this part.

(d) **"Regrooved tire"** means a tire, either original tread or retread, on which the tread pattern has been renewed or a new tread has been produced by cutting into the tread of a worn tire to a depth equal to or deeper than the molded original groove depth.

§ 569.5 Applicability.

(a) **General.** Except as provided in paragraph (b) of this section, this part applies to all motor vehicle regrooved or regroovable tires manufactured or regrooved after the effective date of the regulation.

(b) **Export.** This part does not apply to regrooved or regroovable tires intended solely for export and so labeled or tagged.

§ 569.7 Requirements.

(a) **Regrooved tires.** (1) Except as permitted by paragraph (a)(2) of this section, no person shall sell, offer for sale, or introduce or deliver for introduction into interstate commerce regrooved tires produced by removing rubber from the surface of a worn tire tread to generate a new tread pattern. Any person who regrooves tires and

leases them to owners or operators of motor vehicles and any person who regrooves his own tires for use on motor vehicles is considered to be a person delivering for introduction into interstate commerce within the meaning of this part.

(2) A regrooved tire may be sold, offered for sale, or introduced for sale or delivered for introduction into interstate commerce only if it conforms to each of the following requirements:

(i) The tire being regrooved shall be a regroovable tire;

(ii) After regrooving, cord material below the grooves shall have a protective covering of tread material at least $\frac{3}{16}$ -inch thick.

(iii) After regrooving, the new grooves generated into the tread material and any residual original molded tread groove which is at or below the new regrooved depth shall have a minimum of 90 linear inches of tread edges per linear foot of the circumference;

(iv) After regrooving, the new groove width generated into the tread material shall be a minimum of $\frac{1}{16}$ -inch and a maximum of $\frac{1}{8}$ -inch.

(v) After regrooving, all new grooves cut into the tread shall provide unobstructed fluid escape passages; and

(vi) After regrooving, the tire shall not contain any of the following defects, as determined by a visual examination of the tire either mounted on the rim, or dismounted, whichever is applicable:

(A) Cracking which extends to the fabric,

(B) Groove cracks or wear extending to the fabric, or

(C) Evidence of ply, tread, or sidewall separation.

(vii) If the tire is siped by cutting the tread surface without removing rubber, the tire cord material shall not be damaged as a result of the siping process, and no sipe shall be deeper than the original or retread groove depth.

(b) *Siped regroovable tires.* No person shall sell, offer for sale, or introduce for sale or deliver for introduction into interstate commerce a regroovable tire that has been siped by cutting the tread surface without removing rubber if the tire cord material

is damaged as a result of the siping process, or if the tire is siped deeper than the original or retread groove depth.

[39 FR 15039, Apr. 30, 1974, as amended at 42 FR 21613, Apr. 28, 1977]

§ 569.9 Labeling of regroovable tires.

(a) *Regroovable tires.* After August 30, 1969, each tire designed and constructed for regrooving shall be labeled on both sidewalls with the word "Regroovable" molded on or into the tire in raised or recessed letters 0.025 to 0.040 inch. The word "Regroovable" shall be in letters 0.38 to 0.50 inch in height and not less than 4 inches and not more than 6 inches in length. The lettering shall be located in the sidewall of the tire between the maximum section width and the bead in an area which will not be obstructed by the rim flange.

[34 FR 1150, Jan. 24, 1969; 34 FR 1830, Feb. 7, 1969]

PART 570—VEHICLE IN USE INSPECTION STANDARDS

Subpart A—Vehicles With GVWR of 10,000 Pounds or Less

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AUTHORITY: Secs. 103, 108, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1397, 1407); delegation of authority at 49 CFR 1.50.

Subpart A—Vehicles With GVWR of 10,000 Pounds or Less

SOURCE: 38 FR 23950, Sept. 5, 1973, unless otherwise noted.

§ 570.1 Scope.

This part specifies standards and procedures for inspection of hydraulic service brake systems, steering and suspension systems, and tire and wheel assemblies of motor vehicles in use.

§ 570.2 Purpose.

The purpose of this part is to establish criteria for the inspection of motor vehicles by State inspection systems, in order to reduce death and injuries attributable to failure or inadequate performance of motor vehicle systems.

§ 570.3 Applicability.

This part does not in itself impose requirements on any person. It is intended to be implemented by States through the highway safety program standards issued under the Highway Safety Act (23 U.S.C. 402) with respect to inspection of motor vehicles with gross vehicle weight rating of 10,000 pounds or less, except motorcycles or trailers.

§ 570.4 Definitions.

Unless otherwise indicated, all terms used in this part that are defined in 49 CFR Part 571, Motor Vehicle Safety Standards, are used as defined in that part.

§ 570.5 Service brake system.

Unless otherwise noted, the force to be applied during inspection procedures to power-assisted and full-power brake systems is 25 lb, and to all other systems, 50 lb.

(a) *Failure indicator.* The brake system failure indicator lamp, if part of a vehicle's original equipment, shall be operable. (This lamp is required by Federal Motor Vehicle Safety Stand-

ard No. 105, 49 CFR 571.105, on every new passenger car manufactured on or after January 1, 1968, and on other types of motor vehicles manufactured on or after September 1, 1975.)

(1) *Inspection procedure.* Apply the parking brake and turn the ignition to start, or verify lamp operation by other means indicated by the vehicle manufacturer that the brake system failure indicator lamp is operable.

(b) *Brake system integrity.* The brake system shall demonstrate integrity as indicated by no perceptible decrease in pedal height under a 125 pound force applied to the brake pedal or by no illumination of the brake system failure indicator lamp. The brake system shall withstand the application of force to the pedal without failure of any line or other part.

(1) *Inspection procedures.* With the engine running on vehicles equipped with power brake systems, and the ignition turned to "on" in other vehicles, apply a force of 125 pounds to the brake pedal and hold for 10 seconds. Note any decrease in pedal height, and whether the lamp illuminates.

(c) *Brake pedal reserve.* When the brake pedal is fully depressed, the distance that the pedal has traveled from its free position shall be not greater than 80 percent of the total distance from its free position to the floorboard or other object that restricts pedal travel.

(1) *Inspection procedure.* Measure the distance (A) from the free pedal position to the floorboard or other object that restricts brake pedal travel. Depress the brake pedal, and with the force applied measure the distance (B) from the depressed pedal position to the floorboard or other object that restricts pedal travel.

Determine the percentage as

$$[(A-B)/A] \times 100.$$

The engine must be operating when power-assisted brakes are checked. The pedal reserve check is not required for vehicles equipped with full power (central hydraulic) brake systems, or to vehicles with brake systems designed to operate with greater than 80 percent pedal travel.

(d) *Service brake performance.* Compliance with one of the following performance criteria will satisfy the requirements of this section. Verify that tire inflation pressure is within the limits recommended by vehicle manufacturer before conducting either of the following tests.

(1) *Roller-type or drive-on platform tests.* The force applied by the brake on a front wheel or a rear wheel shall not differ by more than 20 percent from the force applied by the brake on the other front wheel or the other rear wheel respectively.

(i) *Inspection procedure.* The vehicle shall be tested on a drive-on platform, or a roller-type brake analyzer with the capability of measuring equalization. The test shall be conducted in accordance with the test equipment manufacturer's specifications. Note the left to right brake force variance.

(2) *Road test.* The service brake system shall stop the vehicle in a distance of 25 feet or less from a speed of 20 miles per hour without leaving a 12-foot-wide lane.

(i) *Inspection procedure.* The road test shall be conducted on a level (not to exceed plus or minus one percent grade) dry, smooth, hard-surfaced road that is free from loose material, oil, or grease. The service brakes shall be applied at a vehicle speed of 20 miles per hour and the vehicle shall be brought to a stop as specified. Measure the distance required to stop.

(e) *Brake hoses and assemblies.* Brake hoses shall not be mounted so as to contact the vehicle body or chassis. Hoses shall not be cracked, chafed, or flattened. Protective devices, such as "rub rings," shall not be considered part of the hose or tubing.

(1) *Inspection procedure.* Examine visually, inspecting front brake hoses through all wheel positions from full left to full right for conditions indicated.

NOTE: To inspect for paragraphs (f), (g), and (h) of this section, remove at a minimum one front wheel and one rear wheel.

(f) *Disc and drum condition.* If the drum is embossed with a maximum safe diameter dimension or the rotor is embossed with a minimum safety thickness dimension, the drum or disc shall be within the appropriate speci-

cations. These dimensions will be found on motor vehicles manufactured since January 1, 1971, and may be found on vehicles manufactured for several years prior to that time. If the drums and discs are not embossed, the drums and discs shall be within the manufacturer's specifications.

(1) *Inspection procedure.* Examine visually for condition indicated, measuring as necessary.

(g) *Friction materials.* On each brake the thickness of the lining or pad shall not be less than one thirty-second of an inch over the rivet heads, or the brake shoe on bonded linings or pads. Brake linings and pads shall not have cracks or breaks that extend to rivet holes except minor cracks that do not impair attachment. Drum brake linings shall be securely attached to brake shoes. Disc brake pads shall be securely attached to shoe plates.

(1) *Inspection procedure.* Examine visually for conditions indicated, and measure height of rubbing surface of lining over rivet heads. Measure bonded lining thickness over shoe surface at the thinnest point on the lining or pad.

(h) *Structural and mechanical parts.* Backing plates and caliper assemblies shall not be deformed or cracked. System parts shall not be broken, misaligned, missing, binding, or show evidence of severe wear. Automatic adjusters and other parts shall be assembled and installed correctly.

(1) *Inspection procedure.* Examine visually for conditions indicated.

[38 FR 23950, Sept. 5, 1973; 38 FR 25685, Sept. 14, 1973, as amended at 39 FR 12868, Apr. 9, 1974; 39 FR 17321, May 15, 1974]

§ 570.6 Brake power unit.

(a) Vacuum hoses shall not be collapsed, abraded, broken, improperly mounted, or audibly leaking. With residual vacuum exhausted and a constant 25 pound force on the brake pedal, the pedal shall fall slightly when the engine is started, demonstrating integrity of the power assist system. This test is not applicable to vehicles equipped with full power brake system as the service brake per-

formance test shall be considered adequate test of system performance.

(1) *Inspection procedure.* With engine running, examine hoses visually and aurally for conditions indicated. Stop engine and apply service brakes several times to destroy vacuum in system. Depress brake pedal with 25 pounds of force and while maintaining that force, start the engine. If brake pedal does not fall slightly under force when the engine starts, there is a malfunction in the power assist system.

§ 570.7 Steering systems.

(a) *System play.* Lash or free play in the steering system shall not exceed values shown in Table 1.

(1) *Inspection procedure.* With the engine on and the wheels in the straight ahead position, turn the steering wheel in one direction until there is a perceptible movement of a front wheel. If a point on the steering wheel rim moves more than the value shown in Table 1 before perceptible return movement of the wheel under observation, there is excessive lash or free play in the steering system.

TABLE 1—STEERING SYSTEM FREE PLAY VALUES

Steering wheel diameter (inches)	Lash (inches)
16 or less	2
18	2 1/4
20	2 1/2
22	2 3/4

TABLE I—TOE-IN SETTINGS FROM VEHICLE MFR'S SERVICE SPECIFICATIONS

Wheel size (inches)	Nominal tire diameter (inches)	Readings in feet per mile sideslip							
		1/16 in	1/8 in	3/16 in	1/4 in	5/16 in	3/8 in	7/16 in	1/2 in
13	25.2	13.1	26.2	39.3	52.4	65.5	78.6	91.7	104.8
14	26.4	12.5	25.0	37.5	50.0	62.5	75.0	87.5	100.0
15	28.5	11.5	23.0	34.5	46.0	57.5	69.0	80.5	92.0
16	35.6	9.3	18.6	27.9	37.2	46.5	55.8	65.1	74.4

(e) *Power steering system.* The power steering system shall not have cracked or slipping belts, or insufficient fluid in the reservoir.

(b) *Linkage play.* Free play in the steering linkage shall not exceed one-quarter of an inch.

(1) *Inspection procedure.* Elevate the front end of the vehicle to load the ball joints. Insure that wheel bearings are correctly adjusted. Grasp the front and rear of a tire and attempt to turn the tire and wheel assembly left and right. If the free movement at the front or rear tread of the tire exceeds one-quarter inch there is excessive steering linkage play.

(c) *Free turning.* Steering wheels shall turn freely through the limit of travel in both directions.

(1) *Inspection procedure.* Turn off steering wheel through the limit of travel in both directions. Feel for binding or jamming in the steering gear mechanism.

(d) *Alignment.* Toe-in and toe-out measurements shall not be greater than 1.5 times the value listed in the vehicle manufacturer's service specification for alignment setting.

(1) *Inspection procedure.* Verify that toe-in or toe-out is not greater than 1.5 times the values listed in the vehicle manufacturer's service specification for alignment settings as measured by a bar-type scuff gauge or other toe-in measuring device. Values to convert toe-in readings in inches to scuff gauge readings in ft/mi side-slip for different wheel sizes are provided in Table I. Tire diameters used in computing scuff gauge readings are based on the average maximum tire dimensions of grown tires in service for typical wheel and tire assemblies.

(1) *Inspection procedure.* Examine fluid reservoir and pump belts for conditions indicated.

[38 FR 23950, Sept. 5, 1973, as amended at 39 FR 12868, Apr. 9, 1974]

§ 570.8

49 CFR Ch. V (10-1-85 Edition)

§ 570.8 Suspension systems.

(a) *Suspension condition.* Ball joint seals shall not be cut or cracked. Structural parts shall not be bent or damaged. Stabilizer bars shall be connected. Springs shall not be broken, or extended above the vehicle manufacturer's design height. Spacers, if installed, shall be installed on both front springs, both rear springs, or on all four springs. Shock absorber mountings, shackles, and U-bolts shall be securely attached. Rubber bushings shall not be cracked, extruded out from or missing from suspension joints. Radius rods shall not be missing or damaged.

(1) *Inspection procedure.* Examine front and rear end suspension parts for conditions indicated.

(b) *Shock absorber condition.* There shall be no oil on the shock absorber housing attributable to leakage by the seal, and the vehicle shall not continue free rocking motion for more than two cycles.

(1) *Inspection procedure.* Examine shock absorbers for oil leaking from within, then with vehicle on a level surface, push down on one end of vehicle and release. Note number of cycles of free rocking motion. Repeat procedure at other end of vehicle.

[38 FR 23950, Sept. 5, 1973, as amended at 44 FR 68470, Nov. 29, 1979]

§ 570.9 Tires.

(a) *Tread depth.* The tread on each tire shall be not less than two thirty-seconds of an inch deep.

(1) *Inspection procedure.* Passenger car tires have tread depth indicators that become exposed when tread depth is less than two thirty-seconds of an inch. Inspect for indicators in any two adjacent major grooves at three locations spaced approximately equally around the outside of the tire. For vehicles other than passenger cars, it may be necessary to measure tread depth with a tread gauge.

(b) *Type.* Vehicle shall be equipped with tires on the same axle that are matched in tire size designation, construction, and profile.

(1) *Inspection procedures.* Examine visually. A major mismatch in tire size designation, construction, and profile

between tires on the same axle, or a major deviation from the size as recommended by the manufacturer (e.g., as indicated on the glove box placard on 1968 and later passenger cars) are causes for rejection.

(c) *General condition.* Tires shall be free from chunking, bumps, knots, or bulges evidencing cord, ply, or tread separation from the casing or other adjacent materials.

(1) *Inspection procedure.* Examine visually for conditions indicated.

(d) *Damage.* Tire cords or belting materials shall not be exposed, either to the naked eye or when cuts or abrasions on the tire are probed.

(1) *Inspection procedures.* Examine visually for conditions indicated, using a blunt instrument if necessary to probe cuts or abrasions.

[38 FR 23950, Sept. 5, 1973, as amended at 39 FR 12868, Apr. 9, 1974; 39 FR 19781, June 4, 1974]

§ 570.10 Wheel assemblies.

(a) *Wheel integrity.* A tire rim, wheel disc, or spider shall have no visible cracks, elongated bolt holes, or indication of repair by welding.

(1) *Inspection procedure.* Examine visually for conditions indicated.

(b) *Deformation.* The lateral and radial runout of each rim bead area shall not exceed one-eighth of an inch of total indicated runout.

(1) *Inspection procedure.* Using a runout indicator gauge, and a suitable stand, measure lateral and radial runout of rim bead through one full wheel revolution and note runout in excess of one-eighth of an inch.

(c) *Mounting.* All wheel nuts and bolts shall be in place and tight.

(1) *Inspection procedure.* Check wheel retention for conditions indicated.

[38 FR 23950, Sept. 5, 1973, as amended at 39 FR 12868, Apr. 9, 1974]

Subpart B—Vehicles With GVWR of More than 10,000 Pounds

SOURCE: 39 FR 26027, July 16, 1974, unless otherwise noted.

§ 570.51 Scope.

This part specifies standards and procedures for the inspection of brake, steering and suspension systems, and tire and wheel assemblies, of motor vehicles in use with a gross vehicle weight rating of more than 10,000 pounds.

§ 570.52 Purpose.

The purpose of this part is to establish criteria for the inspection of motor vehicles through State inspection programs, in order to reduce deaths and injuries attributable to failure or inadequate performance of the motor vehicle systems covered by this part.

§ 570.53 Applicability.

This part does not in itself impose requirements on any person. It is intended to be implemented by States through the highway safety program standards issued under the Highway Safety Act (23 U.S.C. 402) with respect to inspection of motor vehicles with gross vehicle weight rating greater than 10,000 pounds, except mobile structure trailers.

[39 FR 28980, Aug. 13, 1974]

§ 570.54 Definitions.

Unless otherwise indicated, all terms used in this part that are defined in Part 571 of this chapter, Motor Vehicle Safety Standards, are used as defined in that part.

"Air-over-hydraulic brake subsystem" means a subsystem of the air brake that uses compressed air to transmit a force from the driver control to a hydraulic brake system to actuate the service brakes.

"Electric brake system" means a system that uses electric current to actuate the service brake.

"Vacuum brake system" means a system that uses a vacuum and atmospheric pressure for transmitting a force from the driver control to the service brake, but does not include a system that uses vacuum only to assist the driver in applying muscular force to hydraulic or mechanical components.

§ 570.55 Hydraulic brake system.

The following requirements apply to vehicles with hydraulic brake systems.

(a) *Brake system failure indicator.* The hydraulic brake system failure indicator lamp, if part of a vehicle's original equipment, shall be operable.

(1) *Inspection procedure.* Apply the parking brake and turn the ignition to start to verify that the brake system failure indicator lamp is operable, or verify by other means recommended by the vehicle manufacturer.

(b) *Brake system integrity.* The hydraulic brake system shall demonstrate integrity as indicated by no perceptible decrease in pedal height under a 125-pound force applied to the brake pedal and by no illumination of the brake system failure indicator lamp. The brake system shall withstand the application of force to the pedal without failure of any tube, hose or other part.

(1) *Inspection procedure.* With the engine running in vehicles equipped with power brake systems and the ignition turned to "on" in other vehicles, apply a force of 125 pounds to the brake pedal and hold for 10 seconds. Note any additional decrease in pedal height after the initial decrease, and whether the brake system failure indicator lamp illuminates.

(c) *Brake pedal reserve.* When the brake pedal is depressed with a force of 50 pounds, the distance that the pedal has traveled from its free position shall be not greater than 80 percent of the total distance from its free position to the floorboard or other object that restricts pedal travel. The brake pedal reserve test is not required for vehicles with brake systems designed by the original vehicle, manufacturer to operate with greater than 80 percent pedal travel.

(1) *Inspection procedure.* Measure the distance (i) from the free pedal position to the floor board or other object that restricts brake pedal travel. Depress the brake pedal, and with the force applied measure the distance (ii) from the depressed pedal position to the floor board or other object that restricts pedal travel. Determine the pedal travel percentage as

[(A-B)/A] × 100

The engine must be operating when power-assisted brakes are checked.

(d) *Brake hoses, master cylinder, tubes and tube assemblies.* Hydraulic brake hoses shall not be mounted so as to contact the vehicle body or chassis. Hoses shall not be cracked, chafed, or flattened. Brake tubes shall not be flattened or restricted. Brake hoses and tubes shall be attached or supported to prevent damage by vibration or abrasion. Master cylinder shall not show signs of leakage. Hose or tube protective rings or devices shall not be considered part of the hose or tubing.

(1) *Inspection procedure.* Examine visually brake master cylinder, hoses and tubes, including front brake hoses, through all wheel positions from full left turn to full right turn for conditions indicated.

[39 FR 28027, July 16, 1974, as amended at 40 FR 5160, Feb. 4, 1975]

§ 570.56 Vacuum brake assist unit and vacuum brake system.

The following requirements apply to vehicles with vacuum brake assist units and vacuum brake systems.

(a) *Vacuum brake assist unit integrity.* The vacuum brake assist unit shall demonstrate integrity as indicated by a decrease in pedal height when the engine is started and a constant 50-pound force is maintained on the pedal.

(1) *Inspection procedure.* Stop the engine and apply service brake several times to destroy vacuum in system. Depress the brake pedal with 50 pounds of force and while maintaining that force, start the engine. If the brake pedal does not move slightly under force when the engine starts, there is a malfunction in the power assist unit.

(b) *Low-vacuum indicator.* If the vehicle has a low-vacuum indicator, the indicator activation level shall not be less than 8 inches of mercury.

(1) *Inspection procedure.* Run the engine to evacuate the system fully. Shut off the engine and slowly reduce the vacuum in the system by moderate brake applications until the vehicle vacuum gauge reads 8 inches of mercury. Observe the functioning of the low-vacuum indicator.

(c) Vacuum brake system integrity.

(1) The vacuum brake system shall demonstrate integrity by meeting the following requirements:

(i) The vacuum brake system shall provide vacuum reserve to permit one service brake application with a brake pedal force of 50 pounds after the engine is turned off without actuating the low vacuum indicator.

(ii) Trailer vacuum brakes shall operate in conjunction with the truck or truck tractor brake pedal.

(2) *Inspection procedure.* (i) Check the trailer vacuum system by coupling trailer(s) to truck or truck tractor and opening trailer shutoff valves. Start the engine and after allowing approximately 1 minute to build up the vacuum, apply and release the brake pedal. In the case of trailer brakes equipped with brake chamber rods, observe the chamber rod movement. Run the engine to re-establish maximum vacuum, then shut off the engine and apply the brakes with a 50-pound force on the brake pedal. Note the brake application and check for low-vacuum indicator activation.

(ii) For a combination vehicle equipped with breakaway protection and no reservoir on the towing vehicle supply line, close the supply line shutoff valve and disconnect the supply line. Apply a 50-pound force to the brake pedal on the towing vehicle and release. Trailer brakes should remain in the applied position.

(d) *Vacuum system hoses, tubes and connections.* Vacuum hoses, tubes and connections shall be in place and properly supported. Vacuum hoses shall not be collapsed, cracked or abraded.

(1) *Inspection procedure.* With the engine running, examine hoses and tubes for the conditions indicated and note broken or missing clamps.

§ 570.57 Air brake system and air-over-hydraulic brake subsystem.

The following requirements apply to vehicles with air brake and air-over-hydraulic brake systems. Trailer(s) must be coupled to a truck or truck-tractor for the purpose of this inspection, except as noted.

(a) *Air brake system integrity.* The air brake system shall demonstrate in-

tegrity by meeting the following requirements:

(1) With the vehicle in a stationary position, compressed air reserve shall be sufficient to permit one full service brake application, after the engine is stopped and with the system fully charged, without lowering reservoir pressure more than 20 percent below the initial reading.

(2) The air brake system compressor shall increase the air pressure in the reservoir(s) from the level developed after the test prescribed in § 570.57(a)(1) to the initial pressure noted before the full brake application, with the engine running at the manufacturer's maximum recommended number of revolutions per minute with the compressor governor in the cut-off position, in not more than 30 seconds for vehicles manufactured prior to March 1, 1975. For vehicles, manufactured on or after March 1, 1975, the time allowed for air pressure buildup shall not exceed 45 seconds.

(3) The warning device (visual or audible) connected to the brake system air pressure source shall be activated when air pressure is lowered to an activating level that is not less than 50 psi. For vehicles manufactured to conform to Federal Motor Vehicle Safety Standard No. 121, the low-pressure indicator shall be activated when air pressure is lowered to an activating level that is not less than 60 psi.

(4) The governor cut-in pressure shall be not lower than 80 psi, and the cut-out pressure shall be not higher than 135 psi, unless other values are recommended by the vehicle manufacturer.

(5) Air brake pressure shall not drop more than 2 psi in 1 minute for single vehicles or more than 3 psi in 1 minute for combination vehicles, with the engine stopped and service brakes released. There may be an additional 1 psi drop per minute for each additional towed vehicle.

(6) With the reservoir(s) fully charged, air pressure shall not drop more than 3 psi in 1 minute for single vehicles or more than 4 psi in 1 minute for combination vehicles, with the engine stopped and service brakes fully applied. There may be an addi-

tional 1 psi drop per minute for each additional towed vehicle.

(7) The compressor drive belt shall not be badly worn or frayed and belt-tension shall be sufficient to prevent slippage.

Inspection procedure. With the air system charged, open the drain cocks in the service and supply reservoir on the truck or truck-tractor. Note the pressure at which the visual or audible warning device connected to the low-pressure indicator is activated. Close the drain cocks, and, with the trailer(s) uncoupled, check air pressure buildup at the manufacturer's recommended engine speed. Observe the time required to raise the air pressure from 85 to 100 psi. Continue running the engine until the governor cuts out and note the pressure. Reduce engine speed to idle, couple the trailer(s), if applicable, and make a series of brake applications. Note the pressure at which the governor cuts in. Increased engine speed to fast idle and charge the system to its governed pressure. Stop the engine and record the pressure drop in psi per minute with brakes released and with brakes fully applied.

(b) *Air brake system hoses, tubes and connections.* Air system tubes, hoses and connections shall not be restricted, cracked or improperly supported, and the air hose shall not be abraded.

(1) *Inspection procedure.* Stop the engine and examine air hoses, tubes and connections visually for conditions specified.

(c) *Air-over-hydraulic brake subsystem integrity.* The air-over-hydraulic brake subsystem shall demonstrate integrity by meeting the following requirements:

(1) The air brake system compressor shall increase the air pressure in the reservoir(s) from the level developed after the test prescribed in § 570.57(a)(1) to the initial pressure noted before the full brake application, with the engine running at the manufacturer's recommended number of revolutions per minute and the compressor governor in the cut-out position, in not more than 30 seconds for vehicles manufactured prior to March 1, 1975. For vehicles manufactured on

or after March 1, 1975, the time for air pressure build up shall not exceed 45 seconds.

(2) The warning device (visual or audible) connected to the brake system air pressure source shall be activated when the air pressure is lowered to not less than 50 psi.

(3) The governor cut-in pressure shall be not lower than 80 psi, and the cut-out pressure shall not be higher than 135 psi, unless other values are recommended by the vehicle manufacturer.

(4) Air brake pressure shall not drop more than 2 psi in 1 minute for single vehicles or more than 3 psi in 1 minute for combination vehicles, with the engine stopped and service brakes released. Allow a 1-psi drop per minute for each additional towed vehicle.

(5) With the reservoir(s) fully charged, air pressure shall not drop more than 3 psi in 1 minute for single vehicles or more than 4 psi in 1 minute for combination vehicles, with the engine stopped and service brakes fully applied. Allow a 1-psi pressure drop in 1 minute for each additional towed vehicle.

(6) The compressor drive belt shall not be badly worn or frayed and belt tension shall be sufficient to prevent slippage.

Inspection procedure. With the air system charged, open the drain cocks in the service and supply reservoir on the truck or truck-tractor. Note the pressure at which the visual or audible warning device connected to the low pressure indicator is activated. Close the drain cocks and, with the trailers uncoupled, check air pressure buildup at the manufacturer's recommended engine speed. Observe the time required to raise the air pressure from 85 to 100 psi. Continue running the engine until the governor cuts out and note the pressure. Reduce engine speed to idle, couple trailers, and make a series of brake applications. Note the pressure at which the governor cuts in. Increase engine speed to fast idle and charge the system to its governed pressure. Stop the engine and record the pressure drop in psi per minute with brakes released and with brakes fully applied.

(d) *Air-over-hydraulic brake subsystem hoses, master cylinder, tubes and connections.* System tubes, hoses and connections shall not be cracked or improperly supported, the air and hydraulic hoses shall not be abraded and the master cylinder shall not show signs of leakage.

(1) *Inspection procedure.* Stop the engine and examine air and hydraulic brake hoses, brake master cylinder, tubes and connections visually for conditions specified.

[39 FR 26027, July 16, 1974, as amended at 40 FR 5160, Feb. 4, 1975; 41 FR 13924, Apr. 1, 1976]

§ 570.58 Electric brake system.

(a) *Electric brake system integrity.* The average brake amperage value shall be not more than 20 percent above, and not less than 30 percent below, the brake manufacturer's maximum current rating. In progressing from zero to maximum, the ammeter indication shall show no fluctuation evidencing a short circuit or other interruption of current.

(1) *Inspection procedure.* Insert a low range (0 to 25 amperes for most 2- and 4-brake systems and 0 to 40 amperes for a 6-brake system) d.c. ammeter into the brake circuit between the controller and the brakes. With the controller in the "off" position, the ammeter should read zero. Gradually apply the controller to the "full on" position for a brief period (not to exceed 1 minute) and observe the maximum ammeter reading. Gradually return the controller to "full off" and observe return to zero amperes. Divide the maximum ammeter reading by the number of brakes and determine the brake amperage value.

(b) *Electric brake wiring condition.* Electric brake wiring shall not be frayed. Wiring clips or brackets shall not be broken or missing. Terminal connections shall be clean. Conductor wire gauge shall not be below the brake manufacturer's minimum recommendation.

(1) *Inspection procedure.* Examine visually for conditions specified.

§ 570.59 Service brake system.

(a) *Service brake performance.* Compliance with any one of the following performance criteria will satisfy the requirements of this section. Verify that tire inflation pressure is within the limits recommended by the vehicle manufacturer before conducting either of the following tests.

(1) *Roller-type or drive-on platform tests.* The force applied by the brake on a front wheel or a rear wheel shall not differ by more than 25 percent from the force applied by the brake on the other front wheel or the other rear wheel respectively.

(i) *Inspection procedure.* The vehicle shall be tested on a drive-on platform, or a roller-type brake analyzer with the capability of measuring equalization. The test shall be conducted in accordance with the test equipment manufacturer's specifications. Note the brake force variance.

(2) *Road test.* The service brake system shall stop single unit vehicles, except truck-tractors, in a distance of not more than 35 feet, or combination vehicles and truck-tractors in a distance of not more than 40 feet, from a speed of 20 mph, without leaving a 12-foot-wide lane.

(i) *Inspection procedure.* The road test shall be conducted on a level (not to exceed plus or minus 1 percent grade), dry, smooth, hard-surfaced road that is free from loose material, oil or grease. The service brakes shall be applied at a vehicle speed of 20 mph and the vehicle shall be brought to a stop as specified. Measure the distance required to stop.

NOTE. Inspect for paragraphs (b), (c) and (d) of this section on vehicles equipped with brake inspection ports or access openings, and when removal of wheel is not required.

(b) *Disc and drum condition.* If the drum is embossed with a maximum safe diameter dimension or the rotor is embossed with a minimum safe thickness dimension, the drum or disc shall be within the appropriate specifications. These dimensions will generally be found on motor vehicles manufactured since January 1, 1971, and may be found on vehicles manufactured for several years prior to that time. If the drums and discs are not embossed,

they shall be within the manufacturer's specifications.

(1) *Inspection procedure.* Examine visually for the condition indicated, measuring as necessary.

(c) *Friction materials.* On each brake, the thickness of the lining or pad shall not be less than one thirty-second of an inch over the fastener, or one-sixteenth of an inch over the brake shoe on bonded linings or pads. Brake linings and pads shall not have cracks or breaks that extend to rivet holes except minor cracks that do not impair attachment. The wire in wire-backed lining shall not be visible on the friction surface. Drum brake linings shall be securely attached to brake shoes. Disc brake pads shall be securely attached to shoe plates.

(1) *Inspection procedure.* Examine visually for the conditions indicated, and measure the height of the rubbing surface of the lining over the fastener heads. Measure bonded lining thickness over the surface at the thinnest point on the lining or pad.

(d) *Structural and mechanical parts.* Backing plates, brake spiders and caliper assemblies shall not be deformed or cracked. System parts shall not be broken, misaligned, missing, binding, or show evidence of severe wear. Automatic adjusters and other parts shall be assembled and installed correctly.

(1) *Inspection procedure.* Examine visually for conditions indicated.

§ 570.60 Steering system.

(a) *System play.* Lash or free play in the steering system shall not exceed the values shown in Table 2.

(1) *Inspection procedure.* With the engine on and the steering axle wheels in the straight ahead position, turn the steering wheel in one direction until there is a perceptible movement of the wheel. If a point on the steering wheel rim moves more than the value shown in Table 1 before perceptible return movement of the wheel under observation, there is excessive lash or free play in the steering system.

TABLE 2. STEERING WHEEL FREE PLAY VALUES

Steering wheel diameter (inches)	Lash (inches)
16 or less	2
18	2 $\frac{1}{4}$
20	2 $\frac{1}{2}$
22	2 $\frac{3}{4}$

(b) *Linkage play.* Free play in the steering linkage shall not exceed the values shown in Table 3.

(1) *Inspection procedure.* Elevate the front end of the vehicle to load the ball joints, if the vehicle is so equipped. Insure that wheel bearings are correctly adjusted. Grasp the front and rear of a tire and attempt to turn the tire and wheel assembly left and right. If the free movement at the front or rear tread of the tire exceeds the applicable value shown in Table 3, there is excessive steering linkage play.

TABLE 3. FRONT WHEEL STEERING LINKAGE FREE PLAY

Nominal bead diameter or rim size (inches)	Play (inches)
16 or less	$\frac{1}{4}$
16.01 through 18.00	$\frac{3}{8}$
18.01 or more	$\frac{1}{2}$

(c) *Free turning.* Steering wheels shall turn freely through the limit of travel in both directions.

(1) *Inspection procedure.* With the engine running on a vehicle with power steering, or the steerable wheels elevated on a vehicle without power steering, turn the steering wheel through the limit of travel in both directions. Feel for binding or jamming in the steering gear mechanism.

(d) *Alignment.* Toe-in or toe-out condition shall not be greater than 1.5 times the values listed in the vehicle manufacturer's service specification for alignment setting.

(1) *Inspection procedure.* Drive the vehicle over a sideslip indicator or measure with a tread gauge, and verify that the toe-in or toe-out is not greater than 1.5 times the values listed in the vehicle manufacturer's service specification.

(e) *Power steering system.* The power steering system shall not have

cracked, frayed or slipping belts, chafed or abraded hoses, show signs of leakage or have insufficient fluid in the reservoir.

(1) *Inspection procedure.* Examine fluid reservoir, hoses and pump belts for the conditions indicated.

NOTE: Inspection of the suspension system must not precede the service brake performance test.

§ 570.61 Suspension system.

(a) *Suspension condition.* Ball joint seals shall not be cut or cracked, other than superficial surface cracks. Ball joints and kingpins shall not be bent or damaged. Stabilizer bars shall be connected. Springs shall not be broken and coil springs shall not be extended by spacers. Shock absorber mountings, shackles, and U-bolts shall be securely attached. Rubber bushings shall not be cracked, extruded out from or missing from suspension joints. Radius rods shall not be missing or damaged.

(1) *Inspection procedure.* Examine front and rear end suspension parts for the conditions indicated.

(b) *Shock absorber condition.* There shall be no oil on the shock absorber housings attributable to leakage by the seal.

(1) *Inspection procedure.* Examine shock absorbers for oil leakage from within.

§ 570.62 Tires.

(a) *Tread depth.* The tread shall be not less than four thirty-seconds of an inch deep on each front tire of any vehicle other than a trailer and not less than two thirty-seconds of an inch on all other tires.

(1) *Inspection procedure.* For tires with treadwear indicators, check for indicators in any two adjacent major grooves at three locations spaced approximately 120° apart around the circumference of the tire. For tires without treadwear indicators, measure the tread depth with a suitable gauge or scale in two adjacent major grooves at 3 locations spaced approximately 120° apart around the circumference of the tire at the area of greatest wear.

(b) *Type.* Vehicles should be equipped with tires on the same axle that are matched in construction and

tire size designation, and dual tires shall be matched for overall diameter within one-half inch.

(1) *Inspection procedure.* Examine visually. A mismatch in size and construction between tires on the same axle, or a major deviation from the size recommended by the vehicle or tire manufacturer, is a cause for rejection. On a dual-tire arrangement the diameter of one of the duals must be within one-half inch of the other as measured by a gauge block inserted between the tire and a caliper.

(c) *General condition.* Tires shall be free from chunking, bumps, knots, or bulges evidencing cord, ply or tread separation from the casing.

(1) *Inspection procedure.* Examine visually for the conditions indicated.

(d) *Damage.* Tire cords or belting materials shall not be exposed, either to the naked eye or when cuts on the tire are probed. Reinforcement repairs to the cord body are allowable on tires other than front-mounted tires.

(1) *Inspection procedure.* Examine visually for the conditions indicated, using a blunt instrument if necessary to probe cuts and abrasions.

(e) *Special purpose tires.* Tires marked "Not For Highway Use" or "Farm Use Only" or other such restrictions shall not be used on any motor vehicles operating on public highways.

(1) *Inspection procedure.* Examine visually for tires labeled with specific restrictions.

§ 570.63 Wheel assemblies.

(a) *Wheel integrity.* A tire rim, wheel disc or spider shall have no visible cracks, elongated bolt holes, or indications of in-service repair by welding.

(1) *Inspection procedure.* Examine visually for the conditions indicated.

(b) *Cast wheels.* Cast wheels shall not be cracked or show evidence of excessive wear in the clamp area.

(1) *Inspection procedure.* Examine visually for the conditions indicated.

(c) *Mounting.* All wheel nuts shall be in place and tight.

(1) *Inspection procedure.* Check wheel retention for the conditions indicated.

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

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- 571.203 Standard No. 203; Impact protection for the driver from the steering control system.
- 571.204 Standard No. 204; Steering control rearward displacement.
- 571.205 Standard No. 205; Glazing materials.
- 571.206 Standard No. 206; Door locks and door retention components.
- 571.207 Standard No. 207; Seating systems.
- 571.208 Standard No. 208; Occupant crash protection. (Effective Sept. 1, 1981)
- 571.209 Standard No. 209; Seat belt assemblies.
- 571.210 Standard No. 210; Seat belt assembly anchorages.
- 571.211 Standard No. 211; Wheel nuts, wheel discs, and hub caps.
- 571.212 Standard No. 212; Windshield mounting.
- 571.213 Standard No. 213; Child restraint systems.
- 571.214 Standard No. 214; Side door strength.
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- 571.216 Standard No. 216; Roof crush resistance-passenger cars.
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- 571.218 Standard No. 218; Motorcycle helmets.
- 571.219 Standard No. 219; Windshield zone intrusion.
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- 571.221 Standard No. 221; School bus body joint strength.
- 571.222 Standard No. 222; School bus passenger seating and crash protection.
- 571.301 Standard No. 301; Fuel system integrity.
- 571.302 Standard No. 302; Flammability of interior materials.

AUTHORITY: 15 U.S.C. 1392, 1401, 1403, 1407; delegation of authority at 49 CFR 1.50.

Subpart A—General

§ 571.1 Scope.

This part contains the Federal Motor Vehicle Safety Standards for motor vehicles and motor vehicle equipment established under section 103 of the National Traffic and Motor

Vehicle Safety Act of 1966 (80 Stat. 718).

[33 FR 19703, Dec. 25, 1968. Redesignated at 35 FR 5118, Mar. 26, 1970]

§ 571.3 Definitions.

(a) *Statutory definitions.* All terms defined in section 102 of the Act are used in their statutory meaning.

(b) *Other definitions.* As used in this chapter—

"Act" means the National Traffic and Motor Vehicle Safety Act of 1966 (80 Stat. 718).

"Approved," unless used with reference to another person, means approved by the Secretary.

"Boat trailer" means a trailer designed with cradle-type mountings to transport a boat and configured to permit launching of the boat from the rear of the trailer.

"Bus" means a motor vehicle with motive power, except a trailer, designed for carrying more than 10 persons.

"Curb weight" means the weight of a motor vehicle with standard equipment; maximum capacity of engine fuel, oil, and coolant; and, if so equipped, air conditioning and additional weight optional engine.

"Designated seating capacity" means the number of designated seating positions provided.

"Designated seating position" means any plan view location capable of accommodating a person at least as large as a 5th percentile adult female, if the overall seat configuration and design and vehicle design is such that the position is likely to be used as a seating position while the vehicle is in motion, except for auxiliary seating accommodations such as temporary or folding jump seats. Any bench or split-bench seat in a passenger car, truck or multipurpose passenger vehicle with a GVWR less than 10,000 pounds, having greater than 50 inches of hip room (measured in accordance with SAE Standard J1100(a)) shall have not less than three designated seating positions, unless the seat design or vehicle design is such that the center position cannot be used for seating.

"Driver" means the occupant of a motor vehicle seated immediately behind the steering control system.

"Emergency brake" means a mechanism designed to stop a motor vehicle after a failure of the service brake system.

"5th percentile adult female" means a person possessing the dimensions and weight of the 5th percentile adult female specified for the total age group in Public Health Service Publication No. 1000, Series 11, No. 8, "Weight, Height, and Selected Body Dimensions of Adults."

"Firefighting vehicle" means a vehicle designed exclusively for the purpose of fighting fires."

"Fixed collision barrier" means a flat, vertical, unyielding surface with the following characteristics:

(1) The surface is sufficiently large that when struck by a tested vehicle, no portion of the vehicle projects or passes beyond the surface.

(2) The approach is a horizontal surface that is large enough for the vehicle to attain a stable attitude during its approach to the barrier, and that does not restrict vehicle motion during impact.

(3) When struck by a vehicle, the surface and its supporting structure absorb no significant portion of the vehicle's kinetic energy, so that a performance requirement described in terms of impact with a fixed collision barrier must be met no matter how small an amount of energy is absorbed by the barrier."

"Forward control" means a configuration in which more than half of the engine length is rearward of the foremost point of the windshield base and the steering wheel hub is in the forward quarter of the vehicle length.

"Gross axle weight rating" or "GAWR" means the value specified by the vehicle manufacturer as the load-carrying capacity of a single axle system, as measured at the tire-ground interfaces.

"Gross combination weight rating" or "GCWR" means the value specified by the manufacturer as the loaded weight of a combination vehicle.

"Gross vehicle weight rating" or "GVWR" means the value specified by

the manufacturer as the loaded weight of a single vehicle.

"H point" means the mechanically hinged hip point of a manikin which simulates the actual pivot center of the human torso and thigh, described in SAE Recommended Practice J826, "Manikins for Use in Defining Vehicle Seating Accommodations," November 1962.

"Head impact area" means all nonglazed surfaces of the interior of a vehicle that are statically contactable by a 6.5-inch diameter spherical head form of a measuring device having a pivot point to "top-of-head" dimension infinitely adjustable from 29 to 33 inches in accordance with the following procedure, or its graphic equivalent:

(a) At each designated seating position, place the pivot point of the measuring device—

(1) For seats that are adjustable fore and aft, at—

(i) The seating reference point; and

(ii) A point 5 inches horizontally forward of the seating reference point and vertically above the seating reference point an amount equal to the rise which results from a 5-inch forward adjustment of the seat or 0.75 inch; and

(2) For seats that are not adjustable fore and aft, at the seating reference point.

(b) With the pivot point to "top-of-head" dimension at each value allowed by the device and the interior dimensions of the vehicle, determine all contact points above the lower windshield glass line and forward of the seating reference point.

(c) With the head form at each contact point, and with the device in a vertical position if no contact points exists for a particular adjusted length, pivot the measuring device forward and downward through all arcs in vertical planes to 90° each side of the vertical longitudinal plane through the seating reference point, until the head form contacts an interior surface or until it is tangent to a horizontal plane 1 inch above the seating reference point, whichever occurs first.

"Interior compartment door" means any door in the interior of the vehicle installed by the manufacturer as a

cover for storage space normally used for personal effects.

"Longitudinal" or "longitudinally" means parallel to the longitudinal centerline of the vehicle.

"Motorcycle" means a motor vehicle with motive power having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground.

"Motor-driven cycle" means a motorcycle with a motor that produces 5-brake horsepower or less.

"Multipurpose passenger vehicle" means a motor vehicle with motive power, except a trailer, designed to carry 10 persons or less which is constructed either on a truck chassis or with special features for occasional off-road operation.

"Open-body type vehicle" means a vehicle having no occupant compartment top or an occupant compartment top that can be installed or removed by the user at his convenience.

"Outboard designated seating position" means a designated seating position where a longitudinal vertical plane tangent to the outboard side of the seat cushion is less than 12 inches from the innermost point on the inside surface of the vehicle at a height between the seating reference point and the shoulder reference point (as shown in fig. 1 of Federal Motor Vehicle Safety Standard No. 210) and longitudinally between the front and rear edges of the seat cushion.

"Overall vehicle width" means the nominal design dimension of the widest part of the vehicle, exclusive of signal lamps, marker lamps, outside rearview mirrors, flexible fender extensions, and mud flaps, determined with doors and windows closed and the wheels in the straight-ahead position.

"Parking brake" means a mechanism designed to prevent the movement of a stationary motor vehicle.

"Passenger car" means a motor vehicle with motive power, except a multipurpose passenger vehicle, motorcycle, or trailer, designed for carrying 10 persons or less.

"Pelvic impact area" means that area of the door or body side panel adjacent to any outboard designated seating position which is bounded by

horizontal planes 7 inches above and 4 inches below the seating reference point and vertical transverse planes 8 inches forward and 2 inches rearward of the seating reference point.

"Pole trailer" means a motor vehicle without motive power designed to be drawn by another motor vehicle and attached to the towing vehicle by means of a reach or pole, or by being boomed or otherwise secured to the towing vehicle, for transporting long or irregularly shaped loads such as poles, pipes, or structural members capable generally of sustaining themselves as beams between the supporting connections.

"School bus" means a bus that is sold, or introduced in interstate commerce, for purposes that include carrying students to and from school or related events, but does not include a bus designed and sold for operation as a common carrier in urban transportation.

"Seating reference point" means the manufacturer's design reference point which—

(a) Establishes the rearmost normal design driving or riding position of each designated seating position in a vehicle;

(b) Has coordinates established relative to the designed vehicle structure;

(c) Simulates the position of the pivot center of the human torso and thigh; and

(d) Is the reference point employed to position the two dimensional templates described in SAE Recommended Practice J826, "Manikins for Use in Defining Vehicle Seating Accommodations," November 1962.

"Semitrailer" means a trailer, except a pole trailer, so constructed that a substantial part of its weight rests upon or is carried by another motor vehicle.

"Service brake" means the primary mechanism designed to stop a motor vehicle.

"Speed attainable in 1 mile" means the speed attainable by accelerating at maximum rate from a standing start for 1 mile, on a level surface.

"Speed attainable in 2 miles" means the speed attainable by accelerating at maximum rate from a standing start for 2 miles, on a level surface.

"Torso line" means the line connecting the "H" point and the shoulder reference point as defined in SAE Recommended Practice J787g, "Motor Vehicle Seat Belt Anchorage," September 1966.

"Trailer" means a motor vehicle with or without motive power, designed for carrying persons or property and for being drawn by another motor vehicle.

"Trailer converter dolly" means a trailer chassis equipped with one or more axles, a lower half of a fifth wheel and a drawbar.

"Truck" means a motor vehicle with motive power, except a trailer, designed primarily for the transportation of property or special purpose equipment.

"Truck tractor" means a truck designed primarily for drawing other motor vehicles and not so constructed as to carry a load other than a part of the weight of the vehicle and the load so drawn.

"Unloaded vehicle weight" means the weight of a vehicle with maximum capacity of all fluids necessary for operation of the vehicle, but without cargo, occupants, or accessories that are ordinarily removed from the vehicle when they are not in use.

"95th percentile adult male" means a person possessing the dimensions and weight of the 95th percentile adult male specified in Public Health Service Publication No. 1000, Series 11, No. 8, "Weight, Height, and Selected Body Dimensions of Adults."

"Vehicle fuel tank capacity" means the tank's unusable capacity (i.e., the volume of fuel left at the bottom of the tank when the vehicle's fuel pump can no longer draw fuel from the tank) plus its usable capacity (i.e., the volume of fuel that can be pumped into the tank through the filler pipe with the vehicle on a level surface and with the unusable capacity already in the tank). The term does not include the vapor volume of the tank (i.e., the space above the fuel tank filler neck) nor the volume of the fuel tank filler neck.

[32 FR 19703, Dec. 25, 1968. Redesignated at 36 FR 5118, Mar. 26, 1970]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 571.5, see the List of CFR

Sections Affected in the Finding Aids section of this volume.

§ 571.4 Explanation of usage.

The word "any," used in connection with a range of values or set of items in the requirements, conditions, and procedures of the standards or regulations in this chapter, means generally the totality of the items or values, any one of which may be selected by the Administration for testing, except where clearly specified otherwise.

Examples: "The vehicle shall meet the requirements of S4.1 when tested at any point between 18 and 22 inches above the ground." This means that the vehicle must be capable of meeting the specified requirements at every point between 18 and 22 inches above the ground. The test in question for a given vehicle may call for a single test (a single impact, for example), but the vehicle must meet the requirement at whatever point the Administration selects, within the specified range.

"Each tire shall be capable of meeting the requirements of this standard when mounted on any rim specified by the manufacturer as suitable for use with that tire." This means that, where the manufacturer specifies more than one rim as suitable for use with a tire, the tire must meet the requirements with whatever rim the Administration selects from the specified group.

"Any one of the items listed below may, at the option of the manufacturer, be substituted for the hardware specified in S4.1." Here the wording clearly indicates that the selection of items is at the manufacturer's option.

[36 FR 2511, Feb. 5, 1971]

§ 571.5 Matter incorporated by reference.

(a) *Incorporation.* There are hereby incorporated, by reference, into this part, all materials referred to in any standard in Subpart B of this part that are not set forth in full in the standard. These materials are thereby made part of this regulation. The Director of the FEDERAL REGISTER has approved the materials incorporated by reference. For materials subject to change, only the specific version approved by the Director of the FEDERAL REGISTER and specified in the standard are incorporated. A notice of any change in these materials will be published in the FEDERAL REGISTER. As a convenience to the reader, the materials incorporated by reference are

listed in the Finding Aid Table found at the end of this volume of the Code of Federal Regulations.

(b) *Availability.* The materials incorporated by reference, other than acts of Congress and matter published elsewhere in the **FEDERAL REGISTER**, are available as follows:

(1) *Standards of the Society of Automotive Engineers (SAE).* They are published by the Society of Automotive Engineers, Inc. Information and copies may be obtained by writing to: Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, Pennsylvania 15096.

(2) *Standards of the American Society for Testing and Materials.* They are published by the American Society for Testing and Materials. Information on copies may be obtained by writing to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.

(3) *Standards of the American National Standards Institute.* They are published by the American National Standards Institute. Information and copies may be obtained by writing to: American National Standards Institute, 1430 Broadway, New York, New York 10018.

(4) *Data from the National Health Survey, Public Health Publication No. 1000, Series 11, No. 8.* This is published by the U.S. Department of Health, Education, and Welfare. Copies may be obtained for a price of 35 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

(5) *Test methods of the American Association of Textile Chemists and Colorists.* They are published by the American Association of Textile Chemists and Colorists. Information and copies can be obtained by writing to: American Association of Textile Chemists and Colorists, Post Office Box 886, Durham, NC.

(6) All of the above materials, as well as any other materials incorporated by reference, are available for inspection and copying at the Office of Vehicle Safety Standards, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, D.C. 20590. The materials are also available for inspection and copying at

the Office of the **FEDERAL REGISTER**, 1100 L Street, NW, Washington, D.C.

[33 FR 19704, Dec. 25, 1968. Redesignated at 35 FR 5118, Mar. 26, 1970, and amended at 35 FR 5120, Mar. 26, 1970; 36 FR 1148, Jan. 23, 1971; 41 FR 52880, Dec. 2, 1976; 41 FR 56812, Dec. 30, 1976; 47 FR 7254, Feb. 18, 1982; 48 FR 30141, June 30, 1983]

§ 571.7 Applicability.

(a) *General.* Except as provided in paragraphs (c) and (d) of this section, each standard set forth in Subpart B of this part applies according to its terms to all motor vehicles or items of motor vehicle equipment the manufacture of which is completed on or after the effective date of the standard.

(b) [Reserved]

(c) *Military vehicles.* No standard applies to a vehicle or item of equipment manufactured for, and sold directly to, the Armed Forces of the United States in conformity with contractual specifications.

(d) *Export.* No standard applies to a vehicle or item of equipment in the circumstances provided in section 108(b)(5) of the Act (15 U.S.C. 1397 (b)(5)).

(e) *Combining new and used components.* When a new cab is used in the assembly of a truck, the truck will be considered newly manufactured for purposes of paragraph (a) of this section, the application of the requirements of this chapter, and the Act, unless the engine, transmission, and drive axle(s) (as a minimum) of the assembled vehicle are not new, and at least two of these components were taken from the same vehicle.

(f) *Combining new and used components in trailer manufacture.* When new materials are used in the assembly of a trailer, the trailer will be considered newly manufactured for purposes of paragraph (a) of this section, the application of the requirements of this chapter, and the Act, unless, at a minimum, the trailer running gear assembly (axle(s), wheels, braking and suspension) is not new, and was taken from an existing trailer—

(1) Whose identity is continued in the reassembled vehicle with respect to the Vehicle Identification Number; and

(2) That is owned or leased by the user of the reassembled vehicle.

[33 FR 19703, Dec. 25, 1968. Redesignated at 35 FR 5118, Mar. 26, 1970, and amended at 36 FR 7855, Apr. 27, 1971; 38 FR 12808, May 16, 1973; 40 FR 49341, Oct. 22, 1975; 41 FR 27074, July 1, 1976]

§ 571.8 Effective date.

Notwithstanding the effective date provisions of the motor vehicle safety standards in this part, the effective date of any standard or amendment of a standard issued after September 1, 1971, to which firefighting vehicles must conform shall be, with respect to such vehicles, either 2 years after the date on which such standard or amendment is published in the rules and regulations section of the **FEDERAL REGISTER**, or the effective date specified in the notice, whichever is later, except as such standard or amendment may otherwise specifically provide with respect to firefighting vehicles.

[36 FR 13927, July 28, 1971]

§ 571.9 Separability.

If any standard established in this part or its application to any person or circumstance is held invalid, the remainder of the part and the application of that standard to other persons or circumstances is not affected thereby.

[33 FR 19705, Dec. 25, 1968. Redesignated at 35 FR 5118, Mar. 26, 1970]

Subpart B—Federal Motor Vehicle Safety Standards

Source: 36 FR 22902, Dec. 2, 1971, unless otherwise noted.

§ 571.101 Standard No. 101: Controls and displays.

S1. Scope. This standard specifies requirements for the location, identification, and illumination of motor vehicle controls and displays.

S2. Purpose. The purpose of this standard is to ensure the accessibility and visibility of motor vehicle controls and displays and to facilitate their selection under daylight and nighttime conditions, in order to reduce the

safety hazards caused by the diversion of the driver's attention from the driving task, and by mistakes in selecting controls.

S3. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses.

S4. Definitions.

"**Telltale**" means a display that indicates, by means of a light-emitting signal, the actuation of a device, a correct or defective functioning or condition, or a failure to function.

"**Gauge**" means a display that is listed in S5.1 or in Table 2 and is not a telltale.

"**Informational readout display**" means a display using light-emitting diodes, liquid crystals, or other electro illuminating devices where one or more than one type of information or message may be displayed.

S5. Requirements. (a) Except as provided in paragraph (b) of this section, each passenger car, multipurpose passenger vehicle, truck and bus manufactured with any control listed in S5.1 or in column 1 of Table 1, and each passenger car, multipurpose passenger vehicle and truck or bus less than 10,000 pounds GVWR with any display listed in S5.1 or in column 1 of Table 2, shall meet the requirements of this standard for the location, identification, and illumination of such control or display.

(b) For vehicles manufactured before September 1, 1987, a manufacturer may, at its option—

(1) Meet the requirements in this standard to use identifying words or abbreviation or identifying symbol for a control by using those specified in Table 1(a) instead of Table 1. If none are specified in Table 1(a), none need be used for the control.

(2) Meet the requirements in this standard to use identifying words or abbreviation or identifying symbol for a display by using those specified in Table 2(a) instead of Table 2. If none are specified in Table 2(a), none need be used for the display.

S5.1 Location. Under the conditions of S6, each of the following controls that is furnished shall be operable by the driver and each of the following displays that is furnished shall be visible to the driver. Under conditions of

S6, telltales and informational readout displays are considered visible when activated.

HAND-OPERATED CONTROLS

- (a) Steering wheel.
- (b) Horn.
- (c) Ignition.
- (d) Headlamp.
- (e) Taillamp.
- (f) Turn signal.
- (g) Illumination intensity.
- (h) Windshield wiper.
- (i) Windshield washer.
- (j) Manual transmission shift lever, except transfer case.
- (k) Windshield defrosting and defogging system.
- (l) Rear window defrosting and defogging system.
- (m) Manual choke.
- (n) Driver's sun visor.
- (o) Automatic vehicle speed system.
- (p) Highbeam.
- (q) Hazard warning signal.
- (r) Clearance lamps.
- (s) Hand throttle.
- (t) Identification lamps.

FOOT-OPERATED CONTROLS

- (a) Service brake.
- (b) Accelerator.
- (c) Clutch.
- (d) Highbeam.
- (e) Windshield washer.
- (f) Windshield wiper.

DISPLAYS

- (a) Speedometer.
- (b) Turn signal.
- (c) Gear position.
- (d) Brake failure warning.
- (e) Fuel.
- (f) Engine coolant temperature.
- (g) Oil.
- (h) Highbeam.
- (i) Electrical charge.

S5.2 Identification.

S5.2.1. Vehicle controls shall be identified as follows:

(a) Except as specified in S5.2.1(b), any hand-operated control listed in column 1 of Table 1 that has a symbol designated in column 3 shall be identified by that symbol. Any such control for which no symbol is shown in Table 1 shall be identified by the word or abbreviation shown in column 2, if such word or abbreviation is shown. Words or symbols in addition to the required symbol, word or abbreviation may be used at the manufacturer's discretion for the purpose of clarity. Any such

control for which column 2 of Table 1 and/or column 3 of Table 1 specifies "Mfr. Option" shall be identified by the manufacturer's choice of a symbol, word or abbreviation, as indicated by that specification in column 2 and/or column 3. The identification shall be placed on or adjacent to the control. The identification shall, under the conditions of S6, be visible to the driver and, except as provided in S5.2.1.1 and S5.2.1.2, appear to the driver perceptually upright.

(b) S5.2.1(a) does not apply to a turn signal control which is operated in a plane essentially parallel to the face plane of the steering wheel in its normal driving position and which is located on the left side of the steering column so that it is the control on that side of the column nearest to the steering wheel face plane.

S5.2.1.1 The identification of the following need not appear to the driver perceptually upright:

(a) A master lighting switch or headlamp and tail lamp control that adjusts control and display illumination by means of rotation, or any other rotating control that does not have an off position.

(b) A horn control.

S5.2.1.2 The identification of a rotating control other than one described by S5.2.1.1 shall appear to the driver perceptually upright when the control is in the off position.

S5.2.2 Identification shall be provided for each function of any automatic vehicle speed system control and any heating and air conditioning system control, and for the extreme positions of any such control that regulates a function over a quantitative range. If this identification is not specified in Table 1 or 2, it shall be in word or symbol form unless color coding is used. If color coding is used to identify the extreme positions of a temperature control, the hot extreme shall be identified by the color red and the cold extreme by the color blue.

Example 1. A slide lever controls the temperature of the air in the vehicle heating system, over a continuous range, from no heat to maximum heat. Since the control regulates a single function over a quantitative range, only the extreme positions require identification.

Example 2. A switch has three positions, for heat, defrost, and air conditioning. Since each position regulates a different function, each position must be identified.

S5.2.3 Except for informational readout displays, any display located within the passenger compartment and listed in column 1 of Table 2 that has a symbol designated in column 4, shall be identified by that symbol. Such display may, in addition be identified by the word or abbreviation shown in column 3. Any such display for which no symbol is provided in Table 2 shall be identified by the word or abbreviation shown in column 3. Informational readout displays may be identified by the symbol designated in column 4 of Table 2 or by the word or abbreviation shown in column 3. Additional words or symbols may be used at the manufacturer's discretion for the purpose of clarity. The identification required or permitted by this section shall be placed on or adjacent to the display that it identifies. The identification of any display shall, under the conditions of S6, be visible to the driver and appear to the driver perceptually upright.

S5.3 Illumination.

S5.3.1 Except for foot-operated controls or hand-operated controls mounted upon the floor, floor console, or steering column, or in the windshield header area, the identification required by S5.2.1 or S5.2.2 of any control listed in column 1 of Table 1 and accompanied by the word "yes" in the corresponding space in column 4 shall be capable of being illuminated whenever the headlights are activated. However, control identification for a heating and air-conditioning system need not be illuminated if the system does not direct air directly upon windshield. If a gauge is listed in column 1 of Table 2 and accompanied by the word "yes" in column 5, then the gauge and its identification required by S5.2.3 shall be illuminated whenever the ignition switch and/or the headlamps are activated. Controls,

gauges, and their identifications need not be illuminated when the headlamps are being flashed. A telltale shall not emit light except when identifying the malfunction or vehicle condition for whose indication it is designed or during a bulb check upon vehicle starting.

S5.3.2 Except for informational readout displays, each discrete and distinct telltale shall be of the color shown in column 2 of Table 2. The identification of each telltale shall be in a color that contrasts with the lens, if a telltale with a lens is used. Any telltale used in conjunction with a gauge need not be identified. The color of informational readout displays will be at the option of the manufacturer.

S5.3.3 Light intensities for controls, gauges, and their identification shall be continuously variable from: (a) A position at which either there is no light emitted or the light is barely discernible to a driver who has adapted to dark ambient roadway conditions to (b) a position providing illumination sufficient for the driver to identify the control or display readily under conditions of reduced visibility. Light intensities for informational readout systems shall have at least two values, a higher one for day, and a lower one for nighttime conditions. The intensity of any illumination that is provided in the passenger compartment when and only when the headlights are activated shall also be variable in a manner that complies with this paragraph. The light intensity of each telltale shall not be variable and shall be such that, when activated, that telltale and its identification are visible to the driver under all daytime and nighttime conditions.

S6. Conditions. The driver is restrained by the crash protection equipment installed in accordance with the requirements of § 571.208 of this part (Standard No. 208), adjusted in accordance with the manufacturer's instructions.

Table 1
Identification and Illumination of Controls

Column 1	Column 2	Column 3	Column 4
Hand Operated Controls	Identifying Words or Abbreviation	Identifying Symbol	Illumination
Master Lighting Switch	—		—
Headlamps and Tail lamps	(Mfr. Option) ¹	(Mfr. Option) ¹	—
Horn	—		—
Turn Signal	—		—
Hazard Warning Signal	—		Yes
Windshield Wiping System	—		Yes
Windshield Washing System	—		Yes
Windshield Washing and Wiping Combined	—		Yes
Heating and/or Air Conditioning Fan	—		Yes
Windshield Defrosting and Defogging System	—		Yes
Rear Window Defrosting and Defogging System	—		Yes
Identification: Side Marker and/or Clearance Lamps	—		Yes
Manual Choke	Choke	—	—
Engine Start	Engine Start	—	—
Engine Stop	Engine Stop	—	Yes
Hand Throttle	Throttle	—	—
Automatic Vehicle Speed	(Mfr. Option)	—	Yes
Heating and Air Conditioning System	(Mfr. Option)	(Mfr. Option)	Yes

¹ Use when engine control is separate from the key locking system.

² Separate identification not required if controlled by master lighting switch.

³ The pair of arrows is a single symbol. When the controls for left and right turn operate independently, however, the two arrows may be considered separate symbols and be spaced accordingly.

⁴ Identification not required for vehicles with a GVWR greater than 10,000 lbs., or for narrowing-type controls.

⁵ Framed areas may be filled.

TABLE 1 (a)
Identification and Illumination of Controls

Column 1	Column 2	Col. 3	Col. 4
Hand Operated Controls	Identifying Words or Abbreviation	Identifying Symbol	Illumination
Headlamps and Tail Lamps	Lights		— ^{2,4}
Turn Signal	—		—
Hazard Warning Signal	Hazard		Yes ⁴
Clearance Lamps System	Clearance Lamps or Cl Lps		Yes ^{2,4}
Windshield Wiping System	Wiper or Wipe		Yes
Windshield Washing System	Washer or Wash		Yes
Windshield Washing and Wiping Combined	Wash-Wipe		Yes
Heating and/or Air Conditioning Fan	Fan		Yes
Windshield Defrosting and Defogging System	Defrost, Defog or Def		Yes
Rear Window Defrosting and Defogging System	Rear Defrost, Rear Defog or Rear Def		Yes
Engine Start	Engine Start ¹	—	—
Engine Stop	Engine Stop ¹	—	Yes
Manual Choke	Choke	—	—
Hand Throttle	Throttle	—	—
Automatic Vehicle Speed	(Mfr. Option)	—	Yes
Identification Lamps	Identification Lamps or Id Lps	—	Yes
Heating and Air Conditioning System	(Mfr. Option)	—	Yes

¹ Use when engine control is separate from the key locking system.

² Use also when clearance, identification, parking and/or side marker lamps are controlled with the headlamp switch.

³ Use also when clearance lamps, identification lamps and/or side marker are controlled with one switch other than the headlamp switch.

⁴ Framed areas may be filled.

Table 2

Identification and Illumination of Displays

Column 1	Column 2	Column 3	Column 4	Column 5
Display	Telltale Color	Identifying Words or Abbreviation	Identifying Symbol	Illumination
Turn Signal Telltale	Green	Also see FMVSS 108		—
Hazard Warning Telltale	Red ⁴	Also see FMVSS 108		—
Seat Belt Telltale	Red ⁴	Fasten Belts or Fasten Seat Belts. Also see FMVSS 208.	 or 	—
Fuel Level Telltale	Yellow	Fuel	 or 	—
Gauge	—			Yes
Oil Pressure Telltale	Red ⁴	Oil		—
Gauge	—			Yes
Coolant Temperature Telltale	Red ⁴	Temp		—
Gauge	—			Yes
Electrical Charge Telltale	Red ⁴	Volts, Charge or Amp		—
Gauge	—			Yes
Highbeam Telltale	Blue or Green ⁵	Also see FMVSS 108		—
Malfunction in Anti-Lock or	Yellow	Antilock or Anti-lock. Also see FMVSS 105	—	—
Brake System	Red ⁴	Brake. Also see FMVSS 105	—	—
Brake Air Pressure Position Telltale	Red ⁴	Brake Air. Also see FMVSS 121	—	—
Speedometer	—	MPH ⁵	—	Yes
Odometer	—	— ³	—	—
Automatic Gear Position	—	Also see FMVSS 102	—	Yes

¹ The pair of arrows is a single symbol. When the indicator for left and right turn operate independently however, the two arrows will be considered separate symbols and may be spaced accordingly.

² Not required when arrows of turn signal tell-tales that otherwise operate independently flash simultaneously as hazard warning tell-tale.

³ If the odometer indicates kilometers then "KILOMETERS" or "km" shall appear; otherwise, no identification is required.

⁴ Red can be red-orange. Blue can be blue-green.

⁵ If the speedometer is graduated in miles per hour and in kilometers per hour, the identifying words or abbreviations shall be "MPH and km h" in any combination of upper or lower case letters.

⁶ Framed areas may be filled.

TABLE 2 (a)
Identification and Illumination of Internal Displays

Column 1	Col. 2	Column 3	Column 4	Column 5
Display	Telltale Color	Identifying Words or Abbreviations	Identifying Symbol	Illuminate
Turn Signal Tell Tale	Green	Also see FMVSS 108		—
Hazard Warning Tell Tale	Red ⁴	Also see FMVSS 108		—
Seat Belt Tell Tale	Red ⁴	Fasten Belts or Fasten Seat Belts. Also see FMVSS 208.		—
Fuel Level Tell Tale	Yellow	Fuel		—
Gauge	—	Fuel	—	Yes
Oil Pressure Tell Tale	Red ⁴	Oil		—
Gauge	—	Oil	—	Yes
Coolant Temperature Tell Tale	Red ⁴	Temp		—
Gauge	—	Temp	—	Yes
Electrical Charge Tell Tale	Red ⁴	Volts, Charge or Amp		—
Gauge	—	Volts, Charge or Amp	—	Yes
Speedometer	—	MPH ⁶	—	Yes
Odometer	—	—	—	—
Automatic Gear Position	—	Also see FMVSS 102	—	Yes
High Beam Tell Tale	Blue ³ or Green	Also see FMVSS 108		—
Brake Air Pressure Position Tell Tale	Red ⁴	Brake Air Also See FMVSS 121	—	—
Malfunction in Anti Lock or Brake System	Yellow	Anti Lock Also see FMVSS 105 75	—	—
	Red ⁴	Brake Also see FMVSS 105 75	—	—

1. The pair of arrows is a single symbol. When the indicator for left and right turn operate independently, however, the two arrows will be considered separate symbols and may be spaced accordingly.

2. Not required when arrows of turn signal tell tales that otherwise operate independently flash simultaneously as hazard warning tell tale.

3. If the odometer indicates kilometers, then "KILOMETERS" or "km" shall appear; otherwise, no identification is required.

4. Red can be red-orange. Blue can be blue-green.

5. Framed arrows may be filled.

6. If the speedometer is graduated in miles per hour and in kilometers per hour, the identifying words or abbreviations shall be "MPH and km/h" in any combination of upper or lower case letters.

[43 FR 27542, June 26, 1978, as amended at 44 FR 55583, Sept. 27, 1979; 45 FR 71804, Oct. 30, 1980; 47 FR 2998, Jan. 21, 1982; 49 FR 30196, July 27, 1984; 50 FR 23431, June 4, 1985]

§ 571.102 Standard No. 102: Transmission shift lever sequence, starter interlock, and transmission braking effect.

S1. Purpose and scope. This standard specifies the requirements for the transmission shift lever sequence, a starter interlock, and for a braking effect of automatic transmissions, to reduce the likelihood of shifting errors, starter engagement with vehicle in drive position, and to provide supplemental braking at speeds below 25 miles per hour.

S2. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses.

S3. Requirements.

S3.1 Automatic transmissions.

S3.1.1 Location of transmission shift lever positions on passenger cars. A neutral position shall be located between forward drive and reverse drive positions. If a steering-column-mounted transmission shift lever is used, movement from neutral position to forward drive position shall be clockwise. If the transmission shift lever sequence includes a park position, it shall be located at the end, adjacent to the reverse drive position.

S3.1.2 Transmission braking effect. In vehicles having more than one forward transmission gear ratio, one forward drive position shall provide a greater degree of engine braking than the highest speed transmission ratio at vehicle speeds below 25 miles per hour.

S3.1.3 Starter interlock. The engine starter shall be inoperative when the transmission shift lever is in a forward or reverse drive position.

S3.2 Automatic and manual transmissions. Identification of shift lever positions of automatic transmissions and of the shift lever pattern of manual transmissions, except three forward speed manual transmissions having the standard "H" pattern, shall be permanently displayed in view of the driver.

§ 571.103 Standard No. 103: Windshield defrosting and defogging systems.

S1. Scope. This standard specifies requirements for windshield defrosting and defogging systems.

S2. Application. This standard applies to passenger cars, multipurpose

passenger vehicles, trucks, and buses, manufactured for sale in the continental United States.

S3. Definitions. "Road load" means the power output required to move a given motor vehicle at curb weight plus 400 pounds on level, clean, dry, smooth portland cement concrete pavement (or other surface with equivalent coefficient of surface friction) at a specified speed through still air at 68°F. and standard barometric pressure (29.92" of Hg.) and includes drive-line friction, rolling friction, and air resistance.

S4. Requirements.

S4.1 Each vehicle shall have a windshield defrosting and defogging system.

S4.2 Each passenger car windshield defrosting and defogging system shall meet the requirements of section 3 of SAE Recommended Practice J902, "Passenger Car Windshield Defrosting Systems," August 1964, when tested in accordance with §4.3, except that "the critical area" specified in paragraph 3.1 of SAE Recommended Practice J902 shall be that established as Area C in accordance with Motor Vehicle Safety Standard No. 104, "Windshield Wiping and Washing Systems," and "the entire windshield" specified in paragraph 3.3 of SAE Recommended Practice J902 shall be that established as Area A in accordance with § 571.104.

S4.3 Demonstration procedure. The passenger car windshield defrosting and defogging system shall be tested in accordance with the portions of paragraphs 4.1 through 4.4.7 of SAE Recommended Practice J902, August 1964, or SAE Recommended Practice J902a, March 1967, applicable to that system, except that—

(a) During the first 5 minutes of the test, the engine speed or speeds may be those which the manufacturer recommends as the warmup procedure for cold weather starting;

(b) During the last 35 minutes of the test period (or the entire test period if the 5-minute warmup procedure is not used), either—

(i) The engine speed shall not exceed 1,500 r.p.m. in neutral gear; or

(ii) The engine speed and load shall not exceed the speed and load at 25

m.p.h. in the manufacturer's recommended gear with road load;

(c) A room air change of 90 times per hour is not required;

(d) The windshield wipers may be used during the test if they are operated without manual assist;

(e) One or two windows may be open a total of 1 inch;

(f) The defroster blower may be turned on at any time; and

(g) The wind velocity is at any level from 0 to 2 mph.

(h) The test chamber temperature and the wind velocity shall be measured, after the engine has been started, at the forwardmost point of the vehicle or a point 36 inches from the base of the windshield, whichever is farther forward, at a level halfway between the top and bottom of the windshield on the vehicle centerline.

[36 FR 22902, Dec. 2, 1971, as amended at 40 FR 12992, Mar. 24, 1975; 40 FR 32336, Aug. 1, 1975]

§ 571.104 Standard No. 104; Windshield wiping and washing systems.

S1. Scope. This standard specifies requirements for windshield wiping and washing systems.

S2. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses.

S3. Definitions.

The term "seating reference point" is substituted for the terms "manikin H point" and "H point" wherever either of those terms appears in any SAE Standard or SAE Recommended Practice referred to in this standard.

"Daylight opening" means the maximum unobstructed opening through the glazing surface, as defined in paragraph 2.3.12 of section E, Ground Vehicle Practice, SAE Aerospace-Automotive Drawing Standards, September 1963.

"Glazing surface reference line" means the line resulting from the intersection of the glazing surface and a horizontal plane 25 inches above the seating reference point, as shown in Figure 1 of SAE Recommended Practice J903a, "Passenger Car Windshield Wiper Systems," May 1966.

"Overall width" means the maximum overall body width dimension "W116", as defined in section E,

Ground Vehicle Practice, SAE Aerospace-Automotive Drawing Standards, September 1963.

"Plan view reference line" means—

(a) For vehicles with bench-type seats, a line parallel to the vehicle longitudinal centerline outboard of the steering wheel centerline 0.15 times the difference between one-half of the shoulder room dimension and the steering wheel centerline-to-car-centerline dimension as shown in Figure 2 of SAE Recommended Practice J903a, May 1966; or

(b) For vehicles with individual-type seats, either—

(i) A line parallel to the vehicle longitudinal centerline which passes through the center of the driver's designated seating position; or

(ii) A line parallel to the vehicle longitudinal centerline located so that the geometric center of the 95 percent eye range contour is positioned on the longitudinal centerline of the driver's designated seating position.

"Shoulder room dimension" means the front shoulder room dimension "W3" as defined in section E, Ground Vehicle Practice, SAE Aerospace-Automotive Drawing Standards, September 1963.

"95 percent eye range contour" means the 95th percentile tangential cutoff specified in SAE Recommended Practice J941, "Passenger Car Driver's Eye Range," November 1965.

S4. Requirements.

S4.1 Windshield wiping system. Each vehicle shall have a power-driven windshield wiping system that meets the requirements of S4.1.1.

S4.1.1 Frequency.

S4.1.1.1 Each windshield wiping system shall have at least two frequencies or speeds.

S4.1.1.2 One frequency or speed shall be at least 45 cycles per minute regardless of engine load and engine speed.

S4.1.1.3 Regardless of engine speed and engine load, the highest and one lower frequency or speed shall differ by at least 15 cycles per minute. Such lower frequency or speed shall be at least 20 cycles per minute regardless of engine speed and engine load.

S4.1.1.4 Compliance with subparagraphs S4.1.1.2 and S4.1.1.3 may be

demonstrated by testing under the conditions specified in sections 4.1.1 and 4.1.2 of SAE Recommended Practice J903a, May 1966.

S4.1.2 Wiped area. When tested wet in accordance with SAE Recommended Practice J903a, May 1966, each passenger car windshield wiping system shall wipe the percentage of Areas A, B, and C of the windshield (established in accordance with S4.1.2.1) that (1) is specified in column 2 of the applicable table following subparagraph S4.1.2.1 and (2) is within the area bounded by a perimeter line on the glazing surface 1 inch from the edge of the daylight opening.

S4.1.2.1 Areas A, B, and C shall be established as shown in Figures 1 and 2 of SAE Recommended Practice J903a, May 1966, using the angles specified in Columns 3 through 6 of Table I, II, III, or IV, as applicable.

TABLE I—PASSENGER CARS OF LESS THAN 60 INCHES IN OVERALL WIDTH

Column 1— Area	Column 2— Minimum percent to be wiped	Angles in degrees			
		Column 3— Left	Column 4— Right	Column 5— Up	Column 6— Down
A	80	16	49	7	5
B	94	13	46	4	3
C	99	7	15	3	1

TABLE II—PASSENGER CARS OF 60 OR MORE BUT LESS THAN 64 INCHES IN OVERALL WIDTH

Column 1— Area	Column 2— Minimum percent to be wiped	Angles in degrees			
		Column 3— Left	Column 4— Right	Column 5— Up	Column 6— Down
A	80	17	51	8	5
B	94	13	49	4	3
C	99	7	15	3	1

TABLE III—PASSENGER CARS OF 64 OR MORE BUT LESS THAN 68 INCHES IN OVERALL WIDTH

Column 1— Area	Column 2— Minimum percent to be wiped	Angles in degrees			
		Column 3— Left	Column 4— Right	Column 5— Up	Column 6— Down
A	80	17	53	9	5
B	94	14	51	5	3
C	99	8	15	4	1

TABLE IV—PASSENGER CARS OF 68 OR MORE INCHES IN OVERALL WIDTH

Column 1— Area	Column 2— Minimum percent to be wiped	Angles in degrees			
		Column 3— Left	Column 4— Right	Column 5— Up	Column 6— Down
A	80	18	56	10	5
B	94	14	53	5	3
C	99	10	15	5	1

S4.2 Windshield washing system.

S4.2.1 Each passenger car shall have a windshield washing system that meets the requirements of SAE Recommended Practice J942, "Passenger Car Windshield Washer Systems," November 1965, except that the reference to "the effective wipe pattern defined in SAE J903, paragraph 3.1.2" in paragraph 3.1 of SAE Recommended Practice J942 shall be deleted and "the areas established in accordance with subparagraph S4.1.2.1 of Motor Vehicle Safety Standard No. 104" shall be inserted in lieu thereof.

S4.2.2. Each multipurpose passenger vehicle truck, and bus shall have a windshield washing system that meets the requirements of SAE Recommended Practice J942, November 1965, except that the reference to "the effective wipe pattern defined in SAE J903, paragraph 3.1.2" in paragraph 3.1 of SAE Recommended Practice J942 shall be deleted and "the pattern designed by the manufacturer for the windshield wiping system on the exterior surface of the windshield glazing" shall be inserted in lieu thereof.

§ 571.105 Standard No. 105: Hydraulic brake systems.

S1. Scope. This standard specifies requirements for hydraulic service brake and associated parking brake systems.

S2. Purpose. The purpose of this standard is to insure safe braking performance under normal and emergency conditions.

S3. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses with hydraulic service brake systems.

S4. Definitions. "Antilock system" means a portion of a service brake system that automatically controls the degree of rotational wheel slip at one or more road wheels of the vehicle during braking.

"Backup system" means a portion of a service brake system, such as a pump, that supplies energy, in the event of a primary brake power source failure.

"Brake power assist unit" means a device installed in a hydraulic brake system that reduces the operator effort required to actuate the system, and that if inoperative does not prevent the operator from braking the vehicle by a continued application of muscular force on the service brake control.

"Brake power unit" means a device installed in a brake system that provides the energy required to actuate the brakes, either directly or indirectly through an auxiliary device, with the operator action consisting only of modulating the energy application level.

"Hydraulic brake system" means a system that uses hydraulic fluid as a medium for transmitting force from a service brake control to the service brake, and that may incorporate a brake power assist unit, or a brake power unit.

"Initial brake temperature" means the average temperature of the service brakes on the hottest axle of the vehicle 0.2 mi before any brake application.

"Lightly loaded vehicle weight" means:

(a) For vehicles with a GVWR of 10,000 lbs. or less, unloaded vehicle weight plus 400 lbs. (including driver and instrumentation);

(b) For vehicles with a GVWR greater than 10,000 lbs., unloaded vehicle weight plus 500 lbs. (including driver and instrumentation).

"Parking mechanism" means a component or subsystem of the drive train that locks the drive train when the transmission control is placed in a parking or other gear position and the ignition key is removed.

"Pressure component" means a brake system component that contains the brake system fluid and controls or senses the fluid pressure.

"Skid number" means the frictional resistance of a pavement measured in accordance with American Society for Testing and Materials (ASTM) Method E-274-70 (as revised July, 1974) at 40 mph, omitting water delivery as specified in paragraphs 7.1 and 7.2 of that method.

"Snub" means the braking deceleration of a vehicle from a higher reference speed to a lower reference speed that is greater than zero.

"Spike stop" means a stop resulting from the application of 200 lbs of force on the service brake control in 0.08 s.

"Split service brake system" means a brake system consisting of two or more subsystems actuated by a single control designed so that a leakage-type failure of a pressure component in a single subsystem (except structural failure of a housing that is common to two or more subsystems) shall not impair the operation of any other subsystem.

"Stopping distance" means the distance traveled by a vehicle from the point of application of force to the brake control to the point at which the vehicle reaches a full stop.

"Variable proportioning brake system" means a system that automatically adjusts the braking force at the axles to compensate for vehicle static axle loading and/or dynamic weight transfer between axles during deceleration.

S5. Requirements.

S5.1 Service brake systems. Each passenger car and each multipurpose passenger vehicle, truck and bus with a GVWR of 10,000 lbs. or less, and each school bus with a GVWR of greater than 10,000 lbs. shall be capa-

ble of meeting the requirements of S5.1.1 through S5.1.6 under the conditions prescribed in S6, when tested according to the procedures and in the sequence set forth in S7. Each multipurpose passenger vehicle, truck, and bus (other than a school bus) with a GVWR greater than 10,000 lbs. shall meet the requirements of S5.1.2 and S5.1.3 under the conditions specified in S6 when tested according to the procedures and in the sequence set forth in S7. Except as noted in S5.1.1.2 and S5.1.1.4, if a vehicle is incapable of attaining a speed specified in S5.1.1, S5.1.2, S5.1.3, or S5.1.6, its service brakes shall be capable of stopping the vehicle from the multiple of 5 mph that is 4 to 8 mph less than the speed attainable in 2 miles, within distances that do not exceed the corresponding distances specified in Table II. If a vehicle is incapable of attaining a speed specified in S5.1.4 in the time or distance interval set forth, it shall be tested at the highest speed attainable in the time or distance interval specified.

S5.1.1 Stopping distance. The service brakes shall be capable of stopping each vehicle, other than a vehicle which both has a GVWR of not less than 8,000 pounds and not greater than 10,000 pounds and is not a school bus, in four effectiveness tests within the distances and from the speeds specified in S5.1.1.1, S5.1.1.2, S5.1.1.3, and S5.1.1.4. The service brakes shall be capable of stopping each vehicle which both has a GVWR of not less than 8,000 pounds and is not a school bus, in three effectiveness tests within the distances and from the speeds specified in S5.1.1.1, S5.1.1.2, and S5.1.1.4.

S5.1.1.1 In the first (preburnished) effectiveness test, the vehicle shall be capable of stopping from 30 mph and 60 mph within the corresponding distances specified in column I of table II.

S5.1.1.2 In the second effectiveness test, the vehicle shall be capable of stopping from 30 and 60 mph within the corresponding distances specified in column II of Table II. If the speed attainable in 2 miles is not less than 84 mph, a passenger car or other vehicle

with a GVWR of 10,000 pounds or less shall also be capable of stopping from 80 mph within the corresponding distances specified in column II of Table II.

S5.1.1.3 In the third effectiveness test the vehicle shall be capable of stopping at lightly loaded vehicle weight from 60 mph within the corresponding distance specified in column III of table II.

S5.1.1.4 In the fourth effectiveness test, a vehicle with a GVWR of 10,000 pounds or less shall be capable of stopping from 30 and 60 mph within the corresponding distances specified in Column I of Table II. If the speed attainable in 2 miles is not less than 84 mph, a passenger car, or other vehicle with a GVWR of 10,000 lbs., or less, shall also be capable of stopping from 80 mph within the corresponding distance specified in Column I of Table II.

If the speed attainable in 2 miles is not less than 99 mph, a passenger car shall, in addition, be capable of stopping from the applicable speed indicated below, within the corresponding distance specified in Column I of Table II.

Speed attainable in 2 miles (mph)	Required to stop from (mph)
Not less than 99 but less than 104	95
104 or more	100

S5.1.2 Partial failure.

S5.1.2.1 In vehicles manufactured with a split service brake system, in the event of a rupture or leakage type of failure in a single subsystem, other than a structural failure of a housing that is common to two or more subsystems, the remaining portion(s) of the service brake system shall continue to operate and shall be capable of stopping a vehicle from 60 mph within the corresponding distance specified in Column IV of Table II.

S5.1.2.2 In vehicles not manufactured with a split service brake system, in the event of any one rupture or leakage type of failure in any component of the service brake system the vehicle shall, by operation of the service brake control, be capable of stop-

ping 10 times consecutively from 60 mph within the corresponding distance specified in Column IV of Table II.

S5.1.3 Inoperative brake power assist unit or brake power unit. A vehicle equipped with one or more brake power assist units shall meet the requirements of either S5.1.3.1, S5.1.3.2, or S5.1.3.4 (chosen at the option of the manufacturer), and a vehicle equipped with one or more brake power units shall meet the requirements of either S5.1.3.1, S5.1.3.3, or S5.1.3.4 (chosen at the option of the manufacturer).

S5.1.3.1 The service brakes on a vehicle equipped with one or more brake power assist units or brake power units, with one such unit inoperative and depleted of all reserve capability, shall be capable of stopping a vehicle from 60 mph within the corresponding distance specified in column IV of table II.

S5.1.3.2 Brake power assist units. The service brakes on a vehicle equipped with one or more brake power assist units, with one such unit inoperative, shall be capable of stopping a vehicle from 60 mph:

(a) In six consecutive stops at an average deceleration for each stop that is not lower than that specified in column I of table III, when the inoperative unit is not initially depleted of all reserve capability; and

(b) In a final stop, at an average deceleration that is not lower than 7 FPSPS for passenger cars (equivalent stopping distance 554 feet) or 6 FPSPS for vehicles other than passenger cars (equivalent stopping distance 646 feet), as applicable, when the inoperative unit is depleted of all reserve capacity.

S5.1.3.3 Brake power units. The service brakes of a vehicle equipped with one or more brake power units with an accumulator-type reserve system, with any one failure in any one unit shall be capable of stopping the vehicle from 60 mph—

(a) In 10 consecutive stops at an average deceleration for each stop that is not lower than that specified in column II of table III, when the unit is not initially depleted of all reserve capability; and

(b) In a final stop, at an average deceleration that is not lower than 7 FPSPS for passenger cars (equivalent stopping distance 554 feet) or 6 FPSPS for vehicles other than passenger cars (equivalent stopping distance 646 feet), as applicable, when the inoperative unit is depleted of all reserve capacity.

S5.1.3.4 Brake power assist and brake power units. The service brakes of a vehicle equipped with one or more brake power assist units or brake power units with a backup system, with one brake power assist unit or brake power unit inoperative and depleted of all reserve capability and with only the backup system operating in the failed subsystem, shall be capable of stopping the vehicle from 60 mph in 15 consecutive stops at an average deceleration for each stop that is not lower than 12 fpsps (equivalent stopping distance 323 feet).

S5.1.4 Fade and recovery. The service brakes shall be capable of stopping each vehicle in two fade and recovery tests as specified below.

S5.1.4.1 The control force used for the baseline check stops or snubs shall be not less than 10 pounds, nor more than 60 pounds, except that the control force for a vehicle with a GVWR of 10,000 pounds or more may be between 10 pounds and 90 pounds.

S5.1.4.2(a) Each vehicle with GVWR of 10,000 lbs or less shall be capable of making 5 fade stops (10 fade stops on the second test) from 60 mph at a deceleration not lower than 15 fpsps for each stop, followed by 5 fade stops at the maximum deceleration attainable from 5 to 15 fpsps.

(b) Each vehicle with a GVWR greater than 10,000 pounds shall be capable of making 10 fade snubs (20 fade snubs on the second test) from 40 mph to 20 mph at 10 fpsps for each snub.

S5.1.4.3(a) Each vehicle with a GVWR of 10,000 pounds or less shall be capable of making five recovery stops from 30 mph at 10 fpsps for each stop, with a control force application that falls within the following maximum and minimum limits:

(1) A maximum for the first four recovery stops of 150 pounds, and for the fifth stop, of 20 pounds more than

the average control force for the baseline check; and

(2) A minimum of—

(A) The average control force for the baseline check minus 10 pounds, or

(B) The average control force for the baseline check times 0.60,

whichever is lower (but in no case lower than 5 pounds).

(b) Each vehicle with a GVWR of more than 10,000 pounds shall be capable of making five recovery snubs from 40 mph to 20 mph at 10 fpsps for each snub, with a control force application that falls within the following maximum and minimum limits:

(1) A maximum for the first four recovery snubs of 150 pounds, and for the fifth snub, of 20 pounds more than the average control force for the baseline check (but in no case more than 100 pounds); and

(2) A minimum of—

(A) The average control force for the baseline check minus 10 pounds, or

(B) The average control force for the baseline check times 0.60,

whichever is lower (but in no case lower than 5 pounds).

S5.1.5 Water recovery. The service brakes shall be capable of stopping each vehicle in a water recovery test, as specified below.

S5.1.5.1 The control force used for the baseline check stops or snubs shall be not less than 10 pounds, nor more than 60 pounds, except that the control force for a vehicle with a GVWR of 10,000 pounds or more may be between 10 and 90 pounds.

S5.1.5.2(a) After being driven for 2 minutes at a speed of 5 mph in any combination of forward and reverse directions through a trough having a water depth of 6 inches, each vehicle with a GVWR of 10,000 pounds or less shall be capable of making five recovery stops from 30 mph at ten fpsps for each stop with a control force application that falls within the following maximum and minimum limits:

(1) A maximum for the first four recovery stops of 150 pounds, and for the fifth stop, of 45 pounds more than the average control force for the baseline check (but in no case more than 90 pounds, except that the maximum

control force for the fifth stop in the case of a vehicle manufactured before September 1, 1976, shall be not more than plus 60 pounds of the average control force for the baseline check (but in no case more than 110 pounds).

(2) A minimum of—

(A) The average control force for the baseline check minus 10 pounds, or

(B) The average control force for the baseline check times 0.60, whichever is lower (but in no case lower than 5 pounds).

(b) After being driven for 2 minutes at a speed of 5 mph in any combination of forward and reverse directions through a trough having a water depth of 6 inches, each vehicle with a GVWR of more than 10,000 pounds shall be capable of making five recovery stops from 30 mph at 10 fpsps for each stop with a control force application that falls within the following maximum and minimum limits:

(1) A maximum for the first four recovery stops of 150 pounds, and for the fifth stop, of 60 pounds more than the average control force for the baseline check (but in no case more than 110 pounds); and

(2) A minimum of—

(A) The average control force for the baseline check minus 10 pounds, or

(B) The average control force for the baseline check times 0.60,

whichever is lower (but in no case lower than 5 pounds).

S5.1.6 Spike stops. Each vehicle with a GVWR of 10,000 lbs. or less shall be capable of making 10 spike stops from 30 mph, followed by 6 effectiveness (check) stops from 60 mph, at least one of which shall be within a corresponding stopping distance specified in column I of Table II.

S5.2 Parking brake system. Each vehicle with a GVWR of 10,000 lbs. or less and each school bus with a GVWR greater than 10,000 lbs., shall be manufactured with a parking brake system of a friction type with a solely mechanical means to retain engagement, which shall under the conditions of S6., when tested according to the procedures specified in S7., meet the requirements specified in S5.2.1, S5.2.2,

or S5.2.3 as appropriate, with the system engaged—

(a) In the case of a vehicle with a GVWR of 10,000 lbs. or less, with a force applied to the control not to exceed 125 pounds for a foot-operated system and 90 pounds for a hand-operated system; and

(b) In the case of a school bus with a GVWR greater than 10,000 lbs. with a force applied to the control not to exceed 150 pounds for a foot-operated system and 125 pounds for a hand-operated system.

S5.2.1. Except as provided in § 5.2.2, the parking brake system on a passenger car and on a school bus with a GVWR of 10,000 pounds or less shall be capable of holding the vehicle stationary (to the limit of traction on the braked wheels) for 5 minutes in both a forward and reverse direction on a 30 percent grade.

S5.2.2 A vehicle of a type described in S5.2.1 at the option of the manufacturer may meet the requirements of S5.2.2.1, S5.2.2.2, and S5.2.2.3 instead of the requirements of S5.2.1 if:

(a) The vehicle has a transmission or transmission control which incorporates a parking mechanism, and

(b) The parking mechanism must be engaged before the ignition key can be removed.

S5.2.2.1 The vehicle's parking brake and parking mechanism, when both are engaged, shall be capable of holding the vehicle stationary (to the limit of traction of the braked wheels) for 5 minutes, in both forward and reverse directions, on a 30 percent grade.

S5.2.2.2 The vehicle's parking brake, with the parking mechanism not engaged, shall be capable of holding the vehicle stationary for 5 minutes, in both forward and reverse directions, on a 20 percent grade.

S5.2.2.3 With the parking mechanism engaged and the parking brake not engaged, the parking mechanism shall not disengage or fracture in a manner permitting vehicle movement, when the vehicle is impacted at each end, on a level surface, by a barrier moving at 2½ mph.

S5.2.3. The parking brake system on a multipurpose passenger vehicle, truck and bus (other than a school bus) with a GVWR of 10,000 pounds

or less and a school bus with a GVWR greater than 10,000 pounds shall be capable of holding the vehicle stationary for 5 minutes, in both forward and reverse directions, on a 20 percent grade.

S5.3 Brake system indicator lamp. Each vehicle shall have one or more brake system indicator lamps, mounted in front of and in clear view of the driver, which meet the requirements of S5.3.1 through S5.3.5. However, the options provided in S5.3.1(a) shall not apply to a vehicle manufactured without a split service brake system; such a vehicle shall, to meet the requirements of S5.3.1(a), be equipped with a warning indicator that activates under the conditions specified in S5.3.1(a)(4). This warning indicator shall, instead of meeting the requirements of S5.3.2 through S5.3.5, activate (while the vehicle remains capable of meeting the requirements of S5.1.2.2 and the ignition switch is in the "on" position) a continuous or intermittent audible signal and a flashing warning light, displaying the words "STOP—BRAKE FAILURE" in block capital letters not less than one-quarter of an inch in height.

S5.3.1 An indicator lamp shall be activated when the ignition (start) switch is in the "on" ("run") position and whenever any of conditions (a), (c), or (d) occur, or, at the option of the manufacturer, whenever any of conditions (b), (c), or (d) occur:

(a) A gross loss of pressure (such as caused by rupture of a brake line but not by a structural failure of a housing that is common to two or more subsystems) due to one of the following conditions (chosen at the option of the manufacturer):

(1) Before or upon application of a differential pressure of not more than 225 lb/in² between the active and failed brake system measured at a master cylinder outlet or a slave cylinder outlet.

(2) Before or upon application of 50 pounds of control force upon a fully manual service brake.

(3) Before or upon application of 25 pounds of control force upon a service brake with a brake power assist unit.

(4) When the supply pressure in a brake power unit drops to a level not

less than one-half of the normal system pressure.

(b) A drop in the level of brake fluid in any master cylinder reservoir compartment to less than the recommended safe level specified by the manufacturer or to one-fourth of the fluid capacity of that reservoir compartment, whichever is greater.

(c) A total functional electrical failure in an antilock or variable proportioning brake system.

(d) Application of the parking brake.

S5.3.2 All indicator lamps shall be activated as a check of lamp function either when the ignition (start) switch is turned to the "on" (run) position when the engine is not running, or when the ignition (start) switch is in a position between "on" (run) and "start" that is designated by the manufacturer as a check position. However, in vehicles equipped with an automatic transmission, the activation as a check of lamp function is not required when the transmission shift lever is in a forward or reverse drive position.

S5.3.3 Each indicator lamp activated due to a condition specified in S5.3.1 shall remain activated as long as the condition exists, whenever the ignition (start) switch is in the "on" (run) position, whether or not the engine is running.

S5.3.4 When an indicator lamp is activated it may be steady burning or flashing.

S5.3.5(a) Each indicator lamp shall display word or words, in accordance with the requirements of Standard No. 101 (49 CFR 571.101) and/or this section, which shall be legible to the driver in daylight when lighted. The words shall have letters not less than $\frac{1}{16}$ -inch high. Words in addition to those required by Standard No. 101 and/or this section and symbols may be provided for purposes of clarity.

(b) If a single common indicator is used, the lamp shall display the word "Brake". The letters and background of a single common indicator shall be of contrasting colors, one of which is red.

(c)(1) If separate indicator lamps are used for one or more than one of the functions described in S5.3.1(a) through S5.3.1(d), the display shall, except as provided in (c)(1) (A)

through (D) of this section, include the word "Brake" and appropriate additional labeling.

(A) If a separate indicator lamp is provided for gross loss of pressure, the words "Brake Pressure" shall be used for S5.3.1(a).

(B) If a separate indicator lamp is provided for low brake fluid, the words "Brake Fluid" shall be used for S5.3.1(b), except for vehicles using hydraulic system mineral oil.

(C) If a separate indicator lamp is provided for an anti-lock system, the single word "Antilock" or "Anti-Lock" may be used for S5.3.1(c).

(D) If a separate indicator lamp is provided for application of the parking brake, the single word "Park" may be used for S5.3.1(d).

(2) Except for a separate indicator lamp for an anti-lock system, the letters and background of each separate indicator lamp shall be of contrasting colors, one of which is red. The letters and background of a separate indicator lamp for an anti-lock system shall be of contrasting colors, one of which is yellow.

S5.4 Reservoirs.

S5.4.1 Master cylinder reservoirs. A master cylinder shall have a reservoir compartment for each service brake subsystem serviced by the master cylinder. Loss of fluid from one compartment shall not result in a complete loss of brake fluid from another compartment.

S5.4.2 Reservoir capacity. Reservoirs, whether for master cylinders or other type systems, shall have a total minimum capacity equivalent to the fluid displacement resulting when all the wheel cylinders or caliper pistons serviced by the reservoirs move from a new lining, fully retracted position (as adjusted initially to the manufacturer's recommended setting) to a fully worn, fully applied position, as determined in accordance with S7.18(c) of this standard. Reservoirs shall have completely separate compartments for each subsystem except that in reservoir systems utilizing a portion of the reservoir for a common supply to two or more subsystems, individual partial compartments shall each have a minimum volume of fluid equal to at least the volume displaced by the master

cylinder piston servicing the subsystem, during a full stroke of the piston. Each brake power unit reservoir servicing only the brake system shall have a minimum capacity equivalent to the fluid displacement required to charge the system piston(s) or accumulator(s) to normal operating pressure plus the displacement resulting when all the wheel cylinders or caliper pistons serviced by the reservoir or accumulator(s) move from a new lining fully retracted position (as adjusted initially to the manufacturer's recommended setting) to a fully worn, fully applied position.

S5.4.3 Reservoir labeling.—Each vehicle shall have a brake fluid warning statement that reads as follows, in letters at least one-eighth of an inch high: "WARNING. Clean filler cap before removing. Use only — fluid from a sealed container". (Inserting the recommended type of brake fluid as specified in 49 CFR 571.116, e.g. "DOT 3"). The lettering shall be—

(a) Permanently affixed, engraved, or embossed;

(b) Located so as to be visible by direct view, either on or within 4 inches of the brake fluid reservoir filler plug or cap; and

(c) Of a color that contrasts with its background, if it is not engraved or embossed.

S5.5 Antilock and variable proportioning brake systems. In the event of failure (structural or functional) in an antilock or variable proportioning brake system the vehicle shall be capable of meeting the stopping distance requirements specified in S5.1.2 for service brake system partial failure.

S5.6 Brake system integrity. Each vehicle shall be capable of completing all performance requirements of S5 without—

(a) Detachment or fracture of any component of the braking system, such as brake springs and brake shoe or disc pad facing, other than minor cracks that do not impair attachment of the friction facing. All mechanical components of the braking system shall be intact and functional. Friction facing tearout (complete detachment of lining) shall not exceed 10 percent of the lining on any single frictional element.

(b) Any visible brake fluid or lubricant on the friction surface of the brake, or leakage at the master cylinder or brake power unit reservoir cover, seal and filler openings.

S6. Test conditions. The performance requirements of S5 shall be met under the following conditions. Where a range of conditions is specified, the vehicle shall be capable of meeting the requirements at all points within the range.

S6.1 Vehicle weight.

S6.1.1 Other than tests specified at lightly loaded vehicle weight in S7.7, S7.8, and S7.9, the vehicle is loaded to its GVWR such that the weight on each axle as measured at the tire-ground interface is in proportion to its GAWR, except that each fuel tank is filled to any level from 100 percent of capacity (corresponding to full GVWR) to 75 percent. However, if the weight on any axle of a vehicle at lightly loaded vehicle weight exceeds the axle's proportional share of the gross vehicle weight rating, the load required to reach GVWR is placed so that the weight on that axle remains the same as a lightly loaded vehicle weight.

S6.1.2 For the applicable tests specified in S7.7, S7.8, and S7.9, vehicle weight is lightly loaded vehicle weight, with the added weight distributed in the front passenger seat area in passenger cars, multipurpose passenger vehicles, and trucks, and in the area adjacent to the driver's seat in buses.

S6.2 [Reserved]

S6.3 Tire inflation pressure. Tire inflation pressure is the pressure recommended by the vehicle manufacturer for the GVWR of the vehicle.

S6.4 Transmission selector control. For S7.3, S7.5, S7.8, S7.15, S7.17, S7.11.1.2, S7.11.2.2, S7.11.3.2, and as required for S7.13, the transmission selector control is in neutral for all decelerations. For all other tests during all decelerations, the transmission selector is in the control position, other than overdrive, recommended by the manufacturer for driving on a level surface at the applicable test speed. To avoid engine stall during tests required to be run in gear a manual transmission may be shifted to neutral

(or the clutch disengaged) when the vehicle speed decreases to 20 mph.

S6.5 Engine. Engine idle speed and ignition timing settings are according to the manufacturer's recommendations. If the vehicle is equipped with an adjustable engine speed governor, it is adjusted according to the manufacturer's recommendation.

S6.6 Vehicle openings. All vehicle openings (doors, windows, hood, trunk, convertible top, cargo doors, etc.) are closed except as required for instrumentation purposes.

S6.7 Ambient temperature. The ambient temperature is any temperature between 32° F. and 100° F.

S6.8 Wind velocity. The wind velocity is zero.

S6.9 Road surface. Road tests are conducted on a 12-foot-wide, level roadway having a skid number of 81. Burnish stops are conducted on any surface. The parking brake test surface is clean, dry, smooth Portland cement concrete.

S6.10 Vehicle position. The vehicle is aligned in the center of the roadway at the start of each brake application. Stops, other than spike stops, are made without any part of the vehicle leaving the roadway. Except as noted below, stops are made without lockup of any wheel at speeds greater than 10 mph. There may be controlled lockup on an antilock-equipped axle, and lockup of not more than one wheel per vehicle, uncontrolled by an antilock system. (Dual wheels on one side of an axle are considered a single wheel.) Locked wheels at speeds greater than 10 mph are allowed during spike stops (but not spike check stops), partial failure stops and inoperative brake power or power assist unit stops.

S6.11 Thermocouples. The brake temperature is measured by plug-type thermocouples installed in the approximate center of the facing length and width of the most heavily loaded shoe or disc pad, one per brake, as shown in figure 1. A second thermocouple may be installed at the beginning of the test sequence if the lining wear is expected to reach a point causing the first thermocouple to contact the metal rubbing surface of a drum or rotor. For centergrooved shoes or pads, thermocouples are installed

within one-eighth of an inch to one-quarter inch of the groove and as close to the center as possible.

S6.12 Initial brake temperature. Unless otherwise specified the brake temperature is 150° F. to 200° F.

S6.13 Control forces. Unless otherwise specified, the force applied to a brake control is not less than 15 lb and not more than 150 lb.

S7. Test procedures and sequence. Each vehicle shall be capable of meeting all the applicable requirements of S5, when tested according to the procedures and in the sequence set forth below, without replacing any brake system part or making any adjustments to the brake system other than as permitted in burnish and reburnish procedures and in S7.9 and S7.10. (For vehicles only having to meet the requirements of S5.1.2 and S5.1.3 in section S5.1, the applicable test procedures and sequence are S7.1, S7.2, S7.4, S7.9, S7.10 and S7.18. However, at the option of the manufacturer, the following test procedures and sequence may be conducted: S7.1, S7.2, S7.3, S7.4, S7.5, S7.6, S7.7, S7.8, S7.9, S7.10 and S7.18. The choice of this option shall not be construed as adding to the requirements specified in S5.1.2 and S5.1.3.) Automatic adjusters may be locked out, according to the manufacturer's recommendation, when the vehicle is prepared for testing. If this option is selected, adjusters must remain locked out for entire sequence of tests. A vehicle shall be deemed to comply with the stopping distance requirements of S5.1 if at least one of the stops at each speed and load specified in each of S7.3, S7.5, S7.8, S7.9, S7.10, S7.15, or S7.17 (check stops) is made within a stopping distance that does not exceed the corresponding distance specified in table II. When the transmission selector control is required to be in neutral for a deceleration, a stop or snub shall be obtained by the following procedures: (1) Exceed the test speed by 4 to 8 mph; (2) close the throttle and coast in gear to approximately 2 mph above the test speed; (3) shift to neutral; and (4) when the test speed is reached, apply the service brakes.

S7.1 Brake warming. If the initial brake temperature for the first stop in

a test procedure (other than S7.7 and S7.16) has not been reached, heat the brakes to the initial brake temperature by making not more than 10 snubs from not more than 40 to 10 mph, at a deceleration not greater than 10 fpsps.

S7.2 Pretest instrumentation check. Conduct a general check of instrumentation by making not more than 10 stops from a speed of not more than 30 mph, or 10 snubs from a speed of not more than 40 to 10 mph, at a deceleration of not more than 10 fpsps. If instrument repair, replacement, or adjustment is necessary, make not more than 10 additional stops or snubs after such repair, replacement, or adjustment.

S7.3 Service brake system—first (preburnish) effectiveness test. Make six stops from 30 mph. Then make six stops from 60 mph.

S7.4 Service brake system—burnish procedure.

S7.4.1 Vehicles with GVWR of 10,000 lb or less.

S7.4.1.1 Burnish. Burnish the brakes by making 300 stops from 40 mph at 12 fpsps (the 150 lb control force limit does not apply here). The interval from the start of one service brake application to the start of the next shall be either the time necessary to reduce the initial brake temperature to between 220° F. and 270° F., or the distance of 1 mile, whichever occurs first. Accelerate to 40 mph after each stop and maintain that speed until making the next stop.

S7.4.1.2 Brake adjustment—post burnish. After burnishing, adjust the brakes manually in accordance with the manufacturer's recommendation if the brake systems are manual or if the automatic adjusters are locked out, or by making stops as recommended by the manufacturer if the automatic adjusters are operative.

S7.4.2 Vehicles with GVWR greater than 10,000 lb.

S7.4.2.1 Burnish. Burnish the brakes by making 500 snubs at 10 fpsps in the sequence specified in Table IV and within the speed ranges indicated. After each brake application accelerate to the next speed specified and maintain that speed until making the next brake application at a

point 1 mi from the initial point of the previous brake application. If a vehicle cannot attain any speed specified in 1 mi, continue to accelerate until the speed specified is reached or until a point 1.5 mi from the initial point of the previous brake application is reached, whichever occurs first. If during any of the brake applications specified in Table IV the hottest brake reaches 500° F. make the remainder of the 500 applications from that snub condition, except that a higher or lower snub condition shall be followed (up to the 60 mph initial speed) as necessary to maintain a temperature of 500° F. $\pm$ 50° F.

TABLE IV

Series	Snubs	Snub conditions (highest speed indicated, miles per hour)
1	175	40-20
2	25	45-20
3	25	50-20
4	25	55-20
5	250	60-20

S7.4.2.2 Brake adjustment—post burnish. After burnishing, adjust the brakes manually in accordance with the manufacturer's recommendation if the brake systems are manual or if the automatic adjusters are locked out, or by making stops as recommended by the manufacturer if the automatic adjusters are operative.

S7.5 Service brake system—second effectiveness test. Repeat S7.3. Then (for passenger cars and other vehicles with a GVWR of 10,000 lbs. or less) make four stops from 80 mph if the speed attainable in 2 miles is not less than 84 mph.

S7.6 First reburnish. Repeat S7.4, except make 35 burnish stops or snubs. Reburnish a vehicle whose brakes are burnished according to S7.4.2.1 by making 35 snubs from 60 mph to 20 mph, but if the hottest brake reaches 500° $\pm$ 50° F. make the remainder of the 35 applications from such initial speed divisible by five but less than 60 mph as necessary to maintain a temperature of 500° F. $\pm$ 50° F.

S7.7 Parking brake test. The parking brake tests for any vehicle on different grades, in different directions, and for different loads may be conducted in any order. The force required for actuation of a hand-operated brake system shall be measured at the center of the hand grip area or at a distance of 1½ inches from the end of the actuation lever, as illustrated in Figure II.

S7.7.1 Test procedure for requirements of S5.2.1.

S7.7.1.1 Condition the parking brake friction elements so that the temperature at the beginning of the test is at any level not more than 150° F. (when the temperature of components on both ends of an axle are averaged).

S7.7.1.2 Drive the vehicle, loaded to GVWR, onto the specified grade with the longitudinal axis of the vehicle in the direction of the slope of the grade, stop the vehicle and hold it stationary by application of the service brake control, and place the transmission in neutral.

S7.7.1.3 With the vehicle held stationary by means of the service brake control, apply the parking brake by a single application of the force specified in (a) or (b), except that a series of applications to achieve the specified force may be made in the case of a parking brake system design that does not allow the application of the specified force in a single application:

(a) In the case of a passenger car or other vehicle with a GVWR of 10 000 lbs. or less, not more than 125 pounds for a foot-operated system, and not more than 90 pounds for a hand-operated system; and

(b) In the case of a school bus with a GVWR greater than 10,000 lbs. not more than 150 pounds for a foot-operated system, and not more than 125 pounds for a hand-operated system.

S7.7.1.4 Following the application of the parking brake in accordance with S7.7.1.3, release all force on the service brake control and commence the measurement of time if the vehicle remains stationary. If the vehicle does not remain stationary, reapplication of the service brake to hold the vehicle stationary, with reapplication of a force to the parking brake control at

the level specified in S7.7.1.3 (a) or (b) as appropriate for the vehicle being tested (without release of the ratcheting or other holding mechanism of the parking brake) may be used twice to attain a stationary position.

S7.7.1.5 Following observation of the vehicle in a stationary condition for the specified time in one direction, repeat the same test procedure with the vehicle orientation in the opposite direction on the specified grade.

S7.7.1.6 Check the operation of the parking brake application indicator required by S5.3.1(d).

S7.7.2 Test procedure for requirements of S5.2.2 (a) Check that transmission must be placed in park position to release key:

(b) Test as in S7.7.1, except in addition place the transmission control to engage the parking mechanism, and

(c) Test as in S7.7.1 except on a 20 percent grade, with the parking mechanism not engaged.

S7.7.3 Lightly loaded vehicle. Repeat S7.7.1 or S7.7.2 as applicable except with the vehicle at lightly loaded vehicle weight.

S7.7.4 Non-service brake type parking brake systems. For vehicles with parking brake systems not utilizing the service brake friction elements, burnish the friction elements of such systems prior to parking brake tests according to the manufacturer's published recommendations as furnished to the purchaser. If no recommendations are furnished, run the vehicle in an unburnished condition.

S7.8 Service brake system—lightly loaded vehicle (third effectiveness) test. Make six stops from 60 mph with vehicle at lightly loaded vehicle weight. (This test is not applicable to a vehicle which both has a GVWR of not less than 8,000 pounds and not greater than 10,000 pounds and is not a school bus.)

S7.9 Service brake system test—partial failure.

S7.9.1 With the vehicle at lightly loaded vehicle weight, alter the service brake system to produce any one rupture or leakage type of failure, other than a structural failure of a housing that is common to two or more subsystems. Determine the control force, pressure level, or fluid level (as appro-

prate for the indicator being tested) necessary to activate the brake system indicator lamp. Make four stops if the vehicle is equipped with a split service brake system, or 10 stops if the vehicle is not so equipped, each from 60 mph, by a continuous application of the service brake control. Restore the service brake system to normal at completion of this test.

S7.9.2 Repeat S7.9.1 for each of the other subsystems.

S7.9.3 Repeat S7.9.1 and S7.9.2 with vehicle at GVWR. Restore the service brake system to normal at completion of this test.

S7.9.4 (For vehicles with antilock and/or variable proportioning brake systems). With vehicle at GVWR, disconnect functional power source, or otherwise render antilock system inoperative. Disconnect variable proportioning brake system. Make four stops, each from 60 mph. If more than one antilock or variable proportioning brake subsystem is provided, disconnect or render one subsystem inoperative and run as above. Restore system to normal at completion of this test. Repeat for each subsystem provided.

Determine whether the brake system indicator lamp is activated when the electrical power source to the antilock or variable proportioning unit is disconnected.

S7.10 Service brake system—inoperative brake power unit or brake power assist unit test. (For vehicles equipped with brake power unit or brake power assist unit.)

S7.10.1 Regular procedure. (This test need not be run if the option in S7.10.2 is selected.) On vehicles with brake power assist units, render the brake power assist unit inoperative, or one of the brake power assist unit subsystems if two or more subsystems are provided, by disconnecting the relevant power supply. Exhaust any residual brake power reserve capability of the disconnected system. On vehicles with brake power units, disconnect the primary source of power. Make four stops, each from 60 mph by a continuous application of the service brake control. Restore the system to normal at completion of this test. For vehicles equipped with more than one brake

power unit or brake power assist unit, conduct tests of each in turn.

S7.10.2 Optional Procedures. On vehicles with brake power assist units, the unit is charged to maximum prior to start of test. (Engine may be run up in speed, then throttle closed quickly to attain maximum charge on vacuum assist units.) Brake power units shall also be charged to maximum accumulator pressure prior to start of test. No recharging is allowed after start of test.

(a) (For vehicles with brake power assist units.) Disconnect the primary source of power. Make six stops each from 60 mph, to achieve the average deceleration for each stop as specified in table III. Apply the brake control as quickly as possible. Maintain control force until vehicle has stopped.

At the completion of the stops specified above, deplete the system of any residual brake power reserve capability. Make one stop from 60 mph at an average deceleration of not lower than 7 fpsps for passenger cars (equivalent stopping distance 554 feet), or 6 fpsps for vehicles other than passenger cars (equivalent stopping distance 646 feet) and determine whether the control force exceeds 150 pounds.

(b) (For vehicles with brake power units with accumulator type systems.) Test as in S7.10.2(a), except make 10 stops instead of 6 and, at the completion of the 10 stops, deplete the failed element of the brake power unit of any residual brake power reserve capability before making the final stop.

(c) (For vehicles with brake power assist or brake power units with backup systems.) If the brake power or brake power assist unit operates in conjunction with a backup system and the backup system is activated automatically in the event of a primary power failure, the backup system is operative during this test. Disconnect the primary source of power of one subsystem. Make 15 stops, each from 60 mph, with the backup system activated for the failed subsystem, to achieve an average deceleration of 12 fpsps for each stop.

(d) Restore systems to normal at completion of these tests. For vehicles equipped with more than one brake-

power assist or brakepower unit, conduct tests of each in turn.

S7.11 Service brake system—first fade and recovery test.

S7.11.1 Baseline check stops or snubs.

S7.11.1.1 Vehicles with GVWR of 10,000 lb or less. Make three stops from 30 mph at 10 fpsps for each stop. Control force readings may be terminated when vehicle speed falls to 5 mph. Average the maximum brake control force required for the three stops.

S7.11.1.2 Vehicles with GVWR greater than 10,000 pounds. With transmission in neutral (or de-clutched), make three snubs from 40 to 20 mph at 10 fpsps for each snub. Average the maximum brake control force required for the three snubs.

S7.11.2 Fade stops or snubs.

S7.11.2.1 Vehicles with GVWR of 10,000 pounds or less. Make 5 stops from 60 mph at 15 fpsps followed by 5 stops at the maximum attainable deceleration between 5 and 15 fpsps for each stop. Establish an initial brake temperature before the first brake application of 130° to 150°F. Initial brake temperatures before brake applications for subsequent stops are those occurring at the distance intervals. Attain the required deceleration within 1 second and, as a minimum, maintain it for the remainder of the stopping time. Control force readings may be terminated when vehicle speed falls to 5 mph. Leave an interval of 0.4 mi between the start of brake applications. Accelerate immediately to the initial test speed after each stop. Drive 1 mi at 30 mph after the last fade stop, and immediately follow the recovery procedure specified in S7.11.3.1.

S7.11.2.2 Vehicles with GVWR greater than 10,000 lb. With transmission in neutral (or de-clutched) make 10 snubs from 40 to 20 mph at 10 fpsps for each snub. Establish an initial brake temperature before the first brake application of 130°F. to 150°F. Initial brake temperatures before brake application for subsequent snubs are those occurring in the time intervals specified below. Attain the required deceleration within 1 s and maintain it for the remainder of the snubbing time. Leave an interval of

30 s between snubs (start of brake application to start of brake application). Accelerate immediately to the initial test speed after each snub. Drive for 1.5 mi at 40 mph after the last snub and immediately follow the recovery procedure specified in S7.11.3.2.

S7.11.3 Recovery stops or snubs.

S7.11.3.1 Vehicles with GVWR of 10,000 lb or less. Make five stops from 30 mph at 10 fpsps for each stop. Control force readings may be terminated when vehicle speed falls to 5 mph. Allow a braking distance interval of 1 mi. Immediately after each stop accelerate at maximum rate to 30 mph and maintain that speed until making the next stop. Record the maximum control force for each stop.

S7.11.3.2 Vehicles with GVWR greater than 10,000 lb. With transmission in neutral (or de-clutched) make five snubs from 40 to 20 mph at 10 fpsps for each snub. After each snub, accelerate at maximum rate to 40 mph and maintain that speed until making the next brake application at a point 1.5 mi from the point of the previous brake application. Record the maximum control force for each snub.

S7.12 Service brake system—second reburnish. Repeat S7.6.

S7.13 Service brake system—second fade and recovery test. Repeat S7.11 except in S7.11.2 run 15 fade stops or 20 snubs instead of 10.

S7.14 Third reburnish. Repeat S7.6.

S7.15 Service brake system—fourth effectiveness test. Repeat S7.5. Then (for passenger cars) make four stops from either 95 mph if the speed attainable in 2 mi is 99 to (but not including) 104 mph, or 100 mph if the speed attainable in 2 mi is 104 mph or greater.

S7.16 Service brake system—water recovery test.

S7.16.1 Baseline check stop. Make three stops from 30 mph at 10 fpsps for each stop. Control force readings may be terminated when vehicle speed falls to 5 mph. Average the maximum brake control force required for the three stops.

S7.16.2 Wet brake recovery stops. With the brakes fully released at all times, drive the vehicle for 2 min at a speed of 5 mph in any combination of forward and reverse directions,

through a trough having a water depth of 6 in. After leaving the trough, immediately accelerate at a maximum rate to 30 mph without a brake application. Immediately upon reaching that speed make five stops, each from 30 mph at 10 fpsps for each stop. After each stop (except the last), accelerate the vehicle immediately at a maximum rate to a speed of 30 mph and begin the next stop.

S7.17 Spike stops. Make 10 successive spike stops from 30 mph with the transmission in neutral, with no reverse stops. Make spike stops by applying a control force of 200 lb while recording control force versus time. Maintain control force until vehicle has stopped. At completion of 10 spike stops, make six effectiveness stops from 60 mph.

S7.18 Final inspection. Inspect—

(a) The service brake system for detachment or fracture of any components, such as brake springs and brake shoes or disc pad facing.

(b) The friction surface of the brake, the master cylinder or brake power unit reservoir cover and seal and filler openings, for leakage of brake fluid or lubricant.

(c) The master cylinder or brake power unit reservoir for compliance with the volume and labeling requirements of S5.4.2 and S5.4.3. In determining the fully applied worn condition assume that the lining is worn to: (1) Rivet or bolt heads on riveted or bolted linings, or (2) within one thirty-seconds of an inch of shoe or pad mounting surface on bonded linings, or (3) the limit recommended by the manufacturer, whichever is larger relative to the total possible shoe or pad movement. Drums or rotors are assumed to be at nominal design drum diameter or rotor thickness. Linings are assumed adjusted for normal operating clearance in the released position.

(d) The brake system indicator light(s), for compliance with operation in various key positions, lens color, labeling, and location, in accordance with S5.3.

S7.19 Moving barrier test. (Only for vehicles that have been tested according to S7.7.2.) Load the vehicle to GVWR, release parking brake, and place the transmission selector control to engage the parking mechanism. With a moving barrier as described in paragraph 3.3 of SAE recommended practice J972 "Moving Barrier Collision Tests," November 1966, impact the vehicle from the front at 2½ mph. Keep the longitudinal axis of the barrier parallel with the longitudinal axis of the vehicle. Repeat the test, impacting the vehicle from the rear.

NOTE: The vehicle used for this test need not be the same vehicle that has been used for the braking tests.

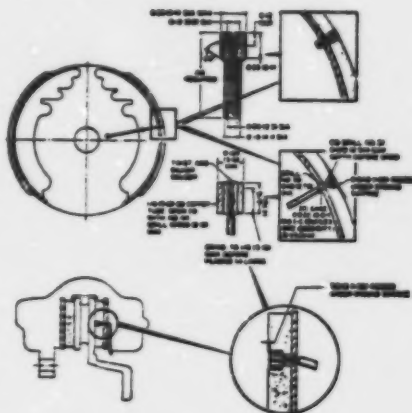
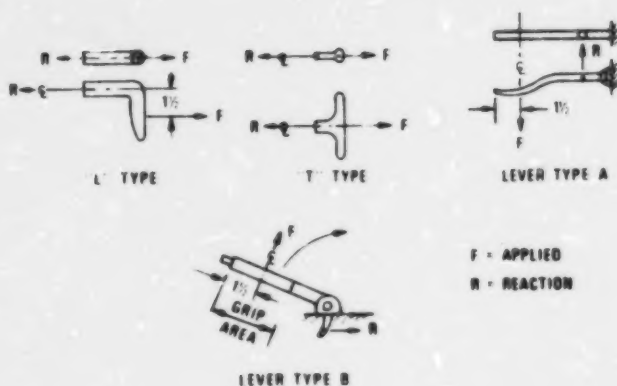


FIGURE 1—TYPICAL PLUG THERMOCOUPLE INSTALLATIONS

NOTE: The second thermocouple shall be installed at .080 inch depth within 1 inch circumferentially of the thermocouple installed at .040 inch depth.



LOCATION FOR MEASURING BRAKE APPLICATION FORCE
(HAND BRAKE)

TABLE I—BRAKE TEST PROCEDURE SEQUENCE AND REQUIREMENTS

No.—Sequence	Test load		Test procedure	Requirements
	Light	GVWR		
1 Instrumentation check			S7.2	
2 First (presumish) effectiveness test		x	S7.3	§5.1.1.1
3 Burnish procedure		x	S7.4	
4 Second effectiveness		x	S7.5	§5.1.1.2
5 First returnish		x	S7.6	
6 Parking brake	x	x	S7.7	§5.2
7 Third effectiveness (lightly loaded vehicle)	x		S7.8	§5.1.1.3
8 Partial failure	x	x	S7.9	§5.1.2
9 Inoperative brake power and power assist units		x	S7.10	§5.1.3
10 First fade and recovery		x	S7.11	§5.1.4
11 Second returnish		x	S7.12	
12 Second fade and recovery		x	S7.13	§5.1.4
13 Third returnish		x	S7.14	
14 Fourth effectiveness		x	S7.15	§5.1.4
15 Water recovery		x	S7.16	§5.1.5
16 Spike stops		x	S7.17	§5.1.6
17 Final inspection			S7.18	§5.6
18 Moving barrier test		x	S7.19	§5.2.2.3

TABLE II—STOPPING DISTANCES

Vehicle test speed (miles per hour)	Stopping distance in feet for tests indicated												IV—Inoperative brake power and power assist unit, partial failure		
	I—1st (preburnished) and 4th effectiveness; spike effectiveness check				II—2d effectiveness			III—3d (lightly loaded vehicle) effectiveness							
	(a)	(b)	(c)	(d)	(a)	(b) and (c)	(d)	(a)	(b)	(c)	(d)	(a)	(b) and (c)	(d)	
30	57	65	69 (1st) 65 (4th and spike)												
			72	88	54	57	81	51	57	65	81	114	130	170	
35	74	83	91	132	70	74	132	67	74	83	132	155	176	225	
40	96	106	119	173	91	96	173	87	96	106	173	202	229	286	
45	121	137	150	218	115	121	218	110	121	137	218	257	291	358	
50	150	169	185	264	142	150	264	135	150	169	264	317	359	435	
55	181	204	224	326	172	181	326	163	181	204	326	383	433	530	
60	216	242	267	388	204	216	388	194	216	242	388	456	517	613	
65	245	274	300	433	233	245	433	223	245	274	433	517	588	700	
70	277	309	336	491	265	277	491	255	277	309	491	588	669	800	
75	311	346	374	552	300	311	552	290	311	346	552	669	760	900	
80	347	385	414	617	336	347	617	326	347	385	617	760	861	1000	
85	385	426	456	687	375	385	687	365	385	426	687	861	972	1100	
90	426	469	500	762	416	426	762	406	426	469	762	972	1093	1200	
95	469	514	546	843	460	469	843	450	469	514	843	1093	1224	1250	
100	514	561	594	931	506	514	931	496	514	561	931	1224	1365	1350	

¹ Distances for specified tests. ² Applicable to school buses only. NA = Not applicable.

NOTE.—(a) Passenger cars; (b) vehicles other than passenger cars with GVWR of less than 8,000 lbs; (c) vehicles with GVWR of not less than 8,000 lbs and not more than 10,000 lbs; (d) vehicles with GVWR greater than 10,000 lbs.

TABLE III—INOPERATIVE BRAKE POWER ASSIST AND BRAKE POWER UNITS

Stop No.	Average deceleration, FPSPS				Equivalent stopping distance, feet			
	Column 1—brake power assist		Column 2—brake power unit		Column 3—brake power assist		Column 4—brake power unit	
	(a)	(b) and (c)	(a)	(b) and (c)	(a)	(b) and (c)	(a)	(b) and (c)
1.	16.0	14.0	16.0	13.0	242	277	242	298
2.	12.0	12.0	13.0	11.0	323	323	298	352
3.	10.0	10.0	12.0	10.0	388	388	323	388
4.	9.0	8.5	11.0	9.5	431	456	352	409
5.	8.0	7.5	10.0	9.0	484	517	388	431
6.	7.5	6.7	9.5	8.5	517	580	409	456
7.	7.0	6.0	9.0	8.0	554	646	431	484
8.	NA	NA	8.5	7.5	NA	NA	456	517
9.	NA	NA	8.0	7.0	NA	NA	484	554
10.	NA	NA	7.5	6.5	NA	NA	517	596
11.	NA	NA	7.0	6.0	NA	NA	554	646

¹ Depleted. (a) Passenger cars; (b) vehicles other than passenger cars with GVWR of 10,000 lbs or less; (c) vehicles with GVWR greater than 10,000 lbs; NA—Not applicable

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); delegation of authority at 49 CFR 1.50 and 501.8)

[41 FR 29696, July 19, 1976; 41 FR 32221, Aug. 2, 1976, as amended at 41 FR 36026, 36027, Aug. 26, 1976; 43 FR 9606, Mar. 9, 1978; 46 FR 64, Jan. 2, 1981; 46 FR 21180, Apr. 9, 1981; 47 FR 61893, Dec. 21, 1981; 48 FR 39941, Sept. 2, 1983; 49 FR 30199, July 27, 1984]

§ 571.106 Standard No. 106; Brake hoses.

S1. Scope. This standard specifies labeling and performance requirements for motor vehicle brake hose, brake hose assemblies, and brake hose end fittings.

S2. Purpose. The purpose of this standard is to reduce deaths and injuries occurring as a result of brake system failure from pressure or vacuum loss due to hose or hose assembly rupture.

S3. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, buses, trailers, and motorcycles, and to hydraulic, air, and vacuum brake hose, brake hose assemblies, and brake hose end fittings for use in those vehicles.

S4. Definitions.

"Armor" means protective material installed on a brake hose to increase the resistance of the hose or hose assembly to abrasion or impact damage.

"Brake hose" means a flexible conduit, other than a vacuum tubing connector, manufactured for use in a brake system to transmit or contain

the fluid pressure or vacuum used to apply force to a vehicle's brakes.

"Brake hose assembly" means a brake hose, with or without armor, equipped with end fittings for use in a brake system, but does not include an air or vacuum assembly prepared by the owner or operator of a used vehicle, by his employee, or by a repair facility, for installation in that used vehicle.

"Brake hose end fitting" means a coupler, other than a clamp, designed for attachment to the end of a brake hose.

"Free length" means the linear measurement of hose exposed between the end fittings of a hose assembly in a straight position.

"Permanently attached end fitting" means an end fitting that is attached by deformation of the fitting about the hose by crimping or swaging, or an end fitting that is attached by use of a sacrificial sleeve or ferrule that requires replacement each time a hose assembly is rebuilt.

"Rupture" means any failure that results in separation of a brake hose from its end fitting or in leakage.

For hose, a dimensional description such as "¼-inch hose" refers to the nominal inside diameter. For tubing, a dimensional description such as "¼-in tubing" refers to the nominal outside diameter.

"Vacuum tubing connector" means a flexible conduit of vacuum that (i)

connects metal tubing to metal tubing in a brake system, (ii) is attached without end fittings, and (iii) when installed, has an unsupported length less than the total length of those portions that cover the metal tubing.

S5. Requirements—Hydraulic brake hose, brake hose assemblies, and brake hose end fittings.

S5.1 Construction. Each hydraulic brake hose assembly shall have permanently attached brake hose end fittings which are attached by deformation of the fitting about the hose by crimping or swaging.

S5.2 Labeling.

S5.2.1 Each hydraulic brake hose shall have at least two clearly identifiable stripes of at least one-sixteenth of an inch in width, placed on opposite sides of the brake hose parallel to its longitudinal axis. One stripe may be interrupted by the information required by S5.2.2, and the other stripe may be interrupted by additional information at the manufacturer's option. However, hydraulic brake hose manufactured for use only in an assembly whose end fittings prevent its installation in a twisted orientation in either side of the vehicle, need not meet the requirements of S5.2.1.

S5.2.2 Each hydraulic brake hose shall be labeled, or cut from bulk hose that is labeled, at intervals of not more than 6 inches, measured from the end of one legend to the beginning of the next, in block capital letters and numerals at least one-eighth of an inch high, with the information listed in paragraphs (a) through (e). The information need not be present on hose after it has become part of a brake hose assembly or after it has been installed in a motor vehicle.

(a) The symbol DOT, constituting a certification by the hose manufacturer that the hose conforms to all applicable motor vehicle safety standards.

(b) A designation that identifies the manufacturer of the hose, which shall be filed in writing with: Office of Crash Avoidance, Handling and Stability Division, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, D.C. 20590. The marking may consist of a designation other than block capital letters required by S5.2.2.

(c) The month, day, and year, or the month and year, of manufacture, expressed in numerals. For example, 10/1/74 means October 1, 1974.

(d) the nominal inside diameter of the hose expressed in inches or fractions of inches, or in millimeters followed by the abbreviation "mm."

(e) Either "HR" to indicate that the hose is regular expansion hydraulic hose or "HL" to indicate that the hose is low expansion hydraulic hose.

S5.2.3 [Reserved]

S5.2.4 Each hydraulic brake hose assembly, except those assembled and installed by a vehicle manufacturer in vehicles manufactured by him, shall be labeled by means of a band around the brake hose assembly as specified in this paragraph or, at the option of the manufacturer, by means of labeling as specified in S5.2.4.1. The band may at the manufacturer's option be attached so as to move freely along the length of the assembly, as long as it is retained by the end fittings. The band shall be etched, embossed, or stamped in block capital letters, numerals or symbols at least one-eighth of an inch high with the following information:

(a) The symbol DOT constituting certification by the hose assembler that the hose assembly conforms to all applicable motor vehicle safety standards.

(b) A designation that identifies the manufacturer of the hose assembly, which shall be filed in writing with: Office of Vehicle Safety Standards, Crash Avoidance Division, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590. The designation may consist of block capital letters, numerals or a symbol.

S5.2.4.1 At least one end fitting of a hydraulic brake hose assembly shall be etched, stamped or embossed with a designation at least one-sixteenth of an inch high that identifies the manufacturer of the hose assembly and is filed in accordance with S5.2.4(b).

S5.3 Test Requirements. A hydraulic brake hose assembly or appropriate part thereof shall be capable of meeting any of the requirements set forth under this heading, when tested under the conditions of S11 and the applica-

ble procedures of S6. However, a particular hose assembly or appropriate part thereof need not meet further requirements after having been subjected to and having met the constriction requirement (S5.3.1) and any one of the requirements specified in S5.3.2 through S5.3.11.

S5.3.1 Constriction. Except for that part of an end fitting which does not contain hose, every inside diameter of any section of a hydraulic brake hose assembly shall be not less than 64 percent of the nominal inside diameter of the brake hose.

S5.3.2 Expansion and burst strength. The maximum expansion of a hydraulic brake hose assembly at 1,000 psi and 1,500 psi shall not exceed the values specified in Table I (S6.1). The hydraulic brake hose assembly shall then withstand water pressure of 4,000 psi for 2 minutes without rupture, and shall not rupture at less than 5,000 psi (S6.2).

TABLE 1—MAXIMUM EXPANSION OF FREE LENGTH BRAKE HOSE, CC/FT.

Hydraulic brake hose, inside diameter	Test Pressure			
	1,000 psi		1,500 psi	
	Regular expansion hose	Low expansion hose	Regular expansion hose	Low expansion hose
1/4 inch or 3 mm or less	0.66	0.33	0.79	0.42
3/16 inch or 4 to 5 mm	86	55	1.02	72
1/2 inch or 6 mm or more	1.04	82	1.30	1.17

S5.3.3 Whip resistance. A hydraulic brake hose assembly shall not rupture when run continuously on a flexing machine for 35 hours (S6.3).

S5.3.4 Tensile strength. A hydraulic brake hose assembly shall withstand a pull of 325 pounds without separation of the hose from its end fittings (S6.4).

S5.3.5 Water absorption and burst strength. A hydraulic brake hose assembly, after immersion in water for 70 hours (S6.5), shall withstand water pressure of 4,000 psi for 2 minutes, and then shall not rupture at less than 5,000 psi (S6.2).

S5.3.6 Water absorption and tensile strength. A hydraulic brake hose as-

sembly, after immersion in water for 70 hours (S6.5), shall withstand a pull of 325 pounds without separation of the hose from its end fittings (S6.4).

S5.3.7 Water absorption and whip resistance. A hydraulic brake hose assembly, after immersion in water for 70 hours (S6.5), shall not rupture when run continuously on a flexing machine for 35 hours (S6.3).

S5.3.8 Low-temperature resistance. A hydraulic brake hose conditioned at minus 40°F. for 70 hours shall not show cracks visible without magnification when bent around a cylinder as specified in S6.6. (S6.6)

S5.3.9 Brake fluid compatibility, constriction, and burst strength. Except for brake hose assemblies designed for use with mineral or petroleum-based brake fluids, a hydraulic brake hose assembly shall meet the constriction requirement of S5.3.1 after having been subjected to a temperature of 200 F. for 70 hours while filled with SAE RM-1 compatibility brake fluid (S6.7). It shall then withstand water pressure of 4,000 psi for 2 minutes and thereafter shall not rupture at less than 5,000 psi (S6.2).

S5.3.10 Ozone resistance. A hydraulic brake hose shall not show cracks visible under 7-power magnification after exposure to ozone for 70 hours at 104 F. (S6.8).

S5.3.11 End fitting corrosion resistance. After 24 hours of exposure to salt spray, a hydraulic brake hose end fitting shall show no base metal corrosion on the end fitting surface except where crimping or the application of labeling information has caused displacement of the protective coating. (S6.9)

S6. Test procedures—Hydraulic brake hose, brake hose assemblies, and brake hose end fittings.

S6.1. Expansion test.

S6.1.1 Apparatus. Utilize a test apparatus (as shown in Figure 1) which consists of:

- Source for required fluid pressure;
- Test fluid of water without any additives and free of gases;
- Reservoir for test fluid;
- Pressure gauges;
- Brake hose end fittings in which to mount the hose vertically; and

(f) Graduate burette with 0.05 cc increments.

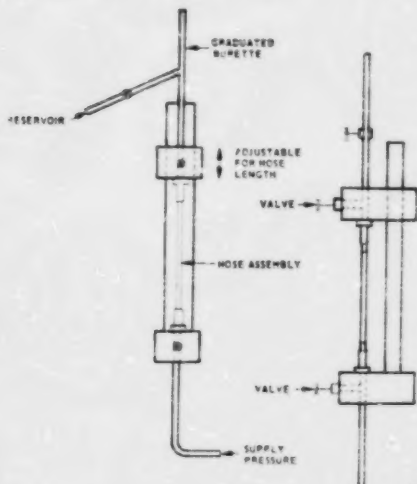


FIG. 1. EXPANSION TEST APPARATUS

S6.1.2 Preparation.

(a) Measure the free length of the hose assembly.

(b) Mount the hose so that it is in a vertical straight position without tension when pressure is applied.

(c) Fill the hose with test fluid and bleed all gases from the system.

(d) Close the valve to the burette and apply 1,500 psi for 10 seconds; then release pressure.

S6.1.3 Calculation of expansion at 1,000 and 1,500 psi.

(a) Adjust the fluid level in the burette to zero.

(b) Close the valve to the burette, apply pressure at the rate of 15,000 psi per minute, and seal 1,000 psi in the hose (1,500 psi in second series).

(c) After 3 seconds open the valve to the burette for 10 seconds and allow the fluid in the expanded hose to rise into the burette.

(d) Repeat the procedure in steps (b) and (c) twice. Measure the amount of test fluid which has accumulated in the burette as a result of the three applications of pressure.

(e) Calculate the volumetric expansion per foot by dividing the total accumulated test fluid by 3 and further

dividing by the free length of the hose in feet.

S6.2 Burst strength test.

(a) Connect the brake hose to a pressure system and fill it completely with water, allowing all gases to escape.

(b) Apply water pressure of 4,000 psi at a rate of 15,000 psi per minute.

(c) After 2 minutes at 4,000 psi, increase the pressure at the rate of 15,000 psi per minute until the pressure exceeds 5,000 psi.

S6.3 Whip resistance test.

S6.3.1 Apparatus. Utilize test apparatus that is dynamically balanced and includes:

(a) A movable header consisting of a horizontal bar equipped with capped end fittings and mounted through bearings at each end to points 4 inches from the center of two vertically rotating disks whose edges are in the same vertical plane;

(b) An adjustable stationary header parallel to the movable header in the same horizontal plane as the centers of the disks, and fitted with open end fittings;

(c) An elapsed time indicator; and

(d) A source of water pressure connected to the open end fittings.

S6.3.2 Preparation.

(a) Remove all external appendages including, but not limited to, hose armor, chafing collars, mounting brackets, date bands and spring guards.

(b) Measure the hose free length.

(c) Mount the hose in the whip test machine, introducing slack as specified in Table II for the size hose tested, measuring the projected length parallel to the axis of the rotating disks. The manufacturer may, at his option, adapt the fitting attachment points to permit mounting hose assemblies equipped with angled or other special fittings in the same orientation as hose assemblies equipped with straight fittings.

TABLE II—HOSE LENGTHS

Free length between end fittings, inches	Stack, inches	
	½ inch or 3 mm hose or less	More than ½ inch or 3 mm hose
8 to 15¼, inclusive	1.750	1.000
16 to 15½, inclusive		
Over 15½ to 19 inclusive	1.250	
Over 19 to 24, inclusive	0.750	

S6.3.3 Operation.

(a) Apply 235 psi water pressure and bleed all gases from the system.

(b) Drive the movable head at 800 rpm.

S6.4 Tensile strength test. Utilize a tension testing machine conforming to the requirements of the methods of Verification of Testing Machines (1964 American Society for Testing and Materials, Designation E4), and provided with a recording device to give the total pull in pounds.

S6.4.1 Preparation. Mount the hose assembly to ensure straight, evenly distributed machine pull.

S6.4.2 Operation. Apply tension at a rate of 1 inch per minute travel of the moving head until separation occurs.

S6.5 Water absorption sequence tests.

S6.5.1 Preparation. Prepare three hose assemblies as follows:

(a) Remove 1½ inches of hose cover, if any, from the center of the hose assemblies without injury to any reinforcing material or elongation of the hose assemblies.

(b) Measure the free length of the hose assemblies.

S6.5.2 Immersion and sequence testing.

(a) Immerse the hose assemblies in distilled water for 70 hours.

(b) Thirty minutes after removal from water, conduct tests S6.2, S6.3, and S6.4, using a different hose for each sequence.

S6.6 Low temperature resistance test.

S6.6.1 Preparation.

(a) Remove hose armor, if any, and condition a hose in a straight position in air at minus 40° F. for 70 hours.

(b) Condition a cylinder in air at minus 40° F. for 70 hours, using a cylin-

der of 2½ inches diameter for test of hose less than ½ inch or 3 mm 3 inches for tests of ½ inch or 3mm hose, 3½ inches for tests of ¾ and 1 inch hose or of 4 to 6 mm hose, and 4 inches for tests of hose greater than ¾ inch or 6 mm in diameter.

S6.6.2 Flexibility testing. Bend the conditioned hose 180 degrees around the conditioned cylinder at a steady rate in a period of 3 to 5 seconds. Examine without magnification for cracks.

S6.7 Brake fluid compatibility test.

S6.7.1 Preparation.

(a) Attach a hose assembly below a 1-pint reservoir filled with 100 ml of SAE RM 1 Compatibility Fluid as shown in Figure 2.

(b) Fill the hose assembly with brake fluid, seal the lower end, and place the test assembly in an oven in a vertical position.

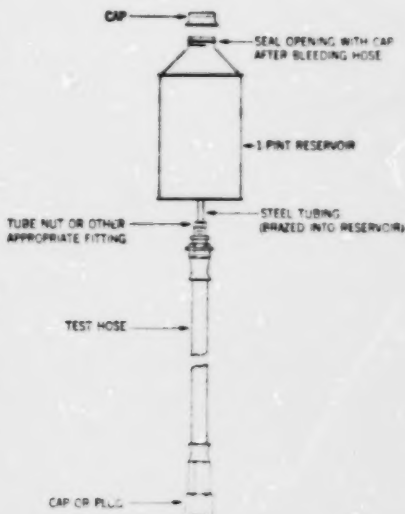


FIG. 2. BRAKE FLUID COMPATABILITY APPARATUS

S6.7.2 Oven treatment.

(a) Condition the hose assembly at 200°F. for 70 hours.

(b) Cool the hose assembly at room temperature for 30 minutes.

(c) Drain the brake hose assembly, immediately determine that every inside diameter of any section of the

hose assembly, except for that part of an end fitting which does not contain hose, is not less than 64 percent of the nominal inside diameter of the hose, and conduct the test specified in S6.2.

S6.8 Ozone resistance test. Utilize a cylinder with a diameter eight times the nominal outside diameter of the brake hose excluding armor.

S6.8.1 Preparation. After removing any armor, bind a hydraulic brake hose 360° around the cylinder. In the case of hose shorter than the circumference of the cylinder, bend the hose so that as much of its length as possible is in contact.

S6.8.2 Exposure to ozone.

(a) Condition the hose on the cylinder in air at room temperature for 24 hours.

(b) Immediately thereafter, condition the hose on the cylinder for 70 hours in an exposure chamber having an ambient air temperature of 104°F. during the test and containing air mixed with ozone in the proportion of 50 parts of ozone per 100 million parts of air by volume.

(c) Examine the hose for cracks under 7-power magnification, ignoring areas immediately adjacent to or within the area covered by binding.

S6.9 End fitting corrosion resistance test. Utilize the apparatus described in ASTM B117-64, "Salt Spray (Fog) Testing".

S6.9.1 Construction. Construct the salt spray chamber so that:

(a) The construction material does not affect the corrosiveness of the fog.

(b) The hose assembly is supported or suspended 30" from the vertical and parallel to the principal direction of the horizontal flow of fog through the chamber.

(c) The hose assembly does not contact any metallic material or any material capable of acting as a wick.

(d) Condensation which falls from the assembly does not return to the solution reservoir for respraying.

(e) Condensation from any source does not fall on the brake hose assemblies or the solution collectors.

(f) Spray from the nozzles is not directed onto the hose assembly.

S6.9.2 Preparation.

(a) Plug each end of the hose assembly.

(b) Mix a salt solution five parts by weight of sodium chloride to 95 parts of distilled water, using sodium chloride substantially free of nickel and copper, and containing on a dry basis not more than 0.1 percent of sodium iodide and not more than 0.3 percent total impurities. Ensure that the solution is free of suspended solids before the solution is atomized.

(c) After atomization at 95° F. ensure that the collected solution is in the PH range of 6.5 to 7.2. Make the PH measurements at 77° F.

(d) Maintain a compressed air supply to the nozzle or nozzles free of oil and dirt and between 10 and 25 psi.

S6.9.3 Operation. Subject the brake hose assembly to the salt spray continuously for 24 hours.

(a) Regulate the mixture so that each collector will collect from 1 to 2 ml. of solution per hour for each 80 square centimeters of horizontal collecting area.

(b) Maintain exposure zone temperature at 95° F.

(c) Upon completion, remove the salt deposit from the surface of the hoses by washing gently or dipping in clean running water not warmer than 100° F. and then drying immediately.

S7. Requirements—Air brake hose, brake hose assemblies, and brake hose end fittings.

S7.1 Construction. Each air brake hose assembly shall be equipped with permanently attached brake hose end fittings or reusable brake hose end fittings. Each air brake hose intended for use with reusable end fittings shall conform to the dimensional requirements specified in Table III.

TABLE III—AIR BRAKE HOSE DIMENSIONS FOR REUSABLE ASSEMBLIES

Size, inches	Inside diameter tolerance, inches	Type I outside diameter, inches		Type II outside diameter, inches	
		Minimum	Maximum	Minimum	Maximum
$\frac{1}{2}$ in.	+ 0.026 - 0.000	0.472	0.510	0.500	0.530
$\frac{3}{4}$ in.	+ 0.031 - 0.000	0.535	0.573	0.562	0.602
$\frac{1}{2}$ in.	+ 0.031 - 0.000	0.596	0.636	0.656	0.695
$\frac{3}{4}$ in.	+ 0.023 - 0.000	0.719	0.781	0.719	0.781

TABLE III—AIR BRAKE HOSE DIMENSIONS FOR REUSABLE ASSEMBLIES—Continued

Size, inches	Inside diameter tolerance, inches	Type I outside diameter, inches		Type II outside diameter, inches	
		Minimum	Maximum	Minimum	Maximum
1 1/2	+0.031 -0.000	0.714	0.780	0.742	0.789
1 1/4	+0.039 -0.000	0.806	0.854	0.896	0.945
3/4	+0.042 -0.000	0.933	0.979	1.054	1.101
1/2 special	+0.031	844	906	844	906

S7.2 Labeling

S7.2.1 Hose. Each air brake hose shall be labeled, or cut from bulk hose that is labeled, at intervals of not more than 6 inches, measured from the end of one legend to the beginning of the next, in block capital letters and numerals at least one-eighth of an inch high, with the information listed in paragraphs (a) through (e). The information need not be present on hose after it has become part of a brake hose assembly or after it has been installed in a motor vehicle.

(a) The symbol DOT, constituting a certification by the hose manufacturer that the hose conforms to all applicable motor vehicle safety standards.

(b) A designation that identifies the manufacturer of the hose, which shall be filed in writing with: Office of Vehicle Safety Standards, Crash Avoidance Division, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590. The designation may consist of block capital letters, numerals, or a symbol.

(c) The month, day, and year, or the month and year, of manufacture, expressed in numerals. For example, 10/1/74 means October 1, 1974.

(d) The nominal inside diameter of the hose expressed in inches or fractions of inches or in millimeters, or the nominal outside diameter of plastic tubing expressed in inches or fractions of inches or in millimeters followed by the letters OD. The abbreviation "mm" shall follow hose sizes that are expressed in millimeters. (Examples of inside diameter: 1/4, 1/2 (1/2 SP in the case of 1/2 inch special air brake

hose), 4 mm, 6 mm. Examples of outside diameter: 1/4 OD, 12 mm OD.)

(e) The letter "A" shall indicate intended use in air brake systems. In the case of a hose intended for use in a reusable assembly, "AI" or "AII" shall indicate Type I or Type II dimensional characteristics of the hose as described in Table III.

S7.2.2 End fittings. Except for an end fitting that is attached by deformation of the fitting about a hose by crimping or swaging, at least one component of each air brake hose fitting shall be etched, embossed, or stamped in block capital letters and numerals at least one-sixteenth of an inch high with the following information:

(a) The symbol DOT, constituting a certification by the manufacturer of that component that the component conforms to all applicable motor vehicle safety standards.

(b) A designation that identifies the manufacturer of that component of the fitting, which shall be filed in writing with: Office of Vehicle Safety Standards, Crash Avoidance Division, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590. The designation may consist of block capital letters, numerals, or a symbol.

(c) The letter "A" shall indicate intended use in air brake systems. In the case of an end fitting intended for use in a reusable assembly, "AI" or "AII" shall indicate use with Type I or Type II hose, respectively.

(d) The nominal inside diameter of the hose to which the fitting is properly attached expressed in inches or fractions of inches or in millimeters, or the outside diameter of the plastic tubing to which the fitting is properly attached expressed in inches or fractions of inches or in millimeters followed by the letters OD (See examples in S7.2.1(d)). The abbreviations "mm" shall follow hose sizes that are expressed in millimeters.

S7.2.3 Assemblies. Each air brake hose assembly made with end fittings that are attached by crimping or swaging, except those assembled and installed by a vehicle manufacturer in vehicles manufactured by him, shall be labeled by means of a band around the brake hose assembly as specified

in this paragraph or, at the option of the manufacturer, by means of labeling as specified in S7.2.3.1. The band may at the manufacturer's option be attached so as to move freely along the length of the assembly, as long as it is retained by the end fittings. The band shall be etched, embossed, or stamped in block capital letters, numerals or symbols at least one-eighth of an inch high, with the following information:

(a) The symbol DOT, constituting certification by the hose assembler that the hose assembly conforms to all applicable motor vehicle safety standards.

(b) A designation that identifies the manufacturer of the hose assembly, which shall be filed in writing with: Office of Vehicle Safety Standards, Crash Avoidance Division, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590. The designation may consist of block capital letters, numerals or a symbol.

S7.2.3.1 At least one end fitting of an air brake hose assembly made with end fittings that are attached by crimping or swaging shall be etched, stamped or embossed with a designation at least one-sixteenth of an inch high that identifies the manufacturer of the hose assembly and is filed in accordance with S7.2.3(b).

S7.3 *Test requirements.* Each air brake hose assembly or appropriate part thereof shall be capable of meeting any of the requirements set forth under this heading, when tested under the conditions of S11 and the applicable procedures of S8. However, a particular hose assembly or appropriate part thereof need not meet further requirements after having met the constriction requirement (S7.3.1) and then having been subjected to any one of the requirements specified in S7.3.2 through S7.3.13.

S7.3.1 *Construction.* Except for that part of an end fitting which does not contain hose, every inside diameter of any section of an air brake hose assembly shall be not less than 66 percent of the nominal inside diameter of the brake hose.

S7.3.2 *High temperature resistance.* An air brake hose shall not show external or internal cracks, charring, or disintegration visible without magnification when straightened after being bent for 70 hours at 212° F. over a cylinder having the radius specified in Table IV for the size of hose tested (S8.1).

S7.3.3 *Low temperature resistance.* The outer cover of an air brake hose shall not show cracks visible without magnification as a result of conditioning at minus 40° F. for 70 hours when bent around a cylinder having the radius specified in Table IV for the size of hose tested (S8.2).

TABLE IV—AIR BRAKE HOSE DIAMETERS AND TEST CYLINDER RADIUS

Nominal hose diameter, in. mm.*	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$	$\frac{5}{8}$, $\frac{3}{4}$	$\frac{7}{8}$
Radius of test cylinder in inches	3	4.5	6	8	10	12	16
	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$

*These sizes are listed to provide test values for brake hoses manufactured in these sizes. They do not represent conversions.

S7.3.4 *Oil resistance.* After immersion in ASTM No. 3 oil for 70 hours at 212° F. the volume of a specimen prepared from the inner tube and cover of an air brake hose shall not increase more than 100 percent (S8.3).

S7.3.5 *Ozone resistance.* The outer cover of an air brake hose shall not show cracks visible under 7-power magnification after exposure to ozone for 70 hours at 104° F. (S8.4).

S7.3.6 *Length change.* An airbrake hose (other than a coiled nylon tube for use in an assembly that meets the requirements of § 393.45 of this title) shall not contract in length more than 7 percent nor elongate more than 5 percent when subjected to air pressure of 200 psi (S8.5).

S7.3.7 *Adhesion.* Except for hose reinforced by wire, an airbrake hose shall withstand a tensile force of 8

pounds per inch of length before separation of adjacent layers (S8.6).

S7.3.8 Air pressure. An air brake hose assembly shall contain air pressure of 200 psi for 5 minutes without loss of more than 5 psi (S8.7).

S7.3.9 Burst strength. An air brake hose assembly shall not rupture when exposed to hydrostatic pressure of 800 psi (S8.8).

S7.3.10 Tensile strength. An air brake hose assembly (other than a coiled nylon tube assembly which meets the requirements of § 393.45 of this title) designed for use between frame and axle or between a towed and a towing vehicle shall withstand, without separation of the hose from its end fittings, a pull of 250 pounds if it is $\frac{1}{4}$ inch or less or 6 mm or less in nominal internal diameter, or a pull of 325 pounds if it is larger than $\frac{1}{4}$ inch or 6 mm in nominal internal diameter. An air brake hose assembly designed for use in any other application shall withstand, without separation of the hose from its end fitting, a pull of 50 pounds if it is $\frac{1}{4}$ inch or 6 mm or less in nominal internal diameter, 150 pounds if it is $\frac{3}{8}$ or $\frac{1}{2}$ inch or 10 mm to 12 mm in nominal internal diameter, or 325 pounds if it is larger than $\frac{1}{2}$ inch or 12 mm in nominal internal diameter (S8.9).

S7.3.11 Water absorption and tensile strength. After immersion in distilled water for 70 hours (S8.10), an air brake hose assembly (other than a coiled tube assembly which meets the requirements of § 393.45 of this title) designed for use between frame and axle or between a towed and a towing vehicle shall withstand without separation of the hose from its end fittings a pull of 250 pounds if it is $\frac{1}{4}$ inch or 6 mm or less in nominal internal diameter, or a pull of 325 pounds if it is larger than $\frac{1}{4}$ inch or 6 mm in nominal internal diameter. After immersion in distilled water for 70 hours (S8.10), an air brake hose assembly designed for use in any other application shall withstand without separation of the hose from its end fitting a pull of 50 pounds if it is $\frac{1}{4}$ inch or 6 mm or less in nominal internal diameter, 150 pounds if it is $\frac{3}{8}$ inch or $\frac{1}{2}$ inch or 10 to 12 mm in nominal internal diameter, or 325 pounds if it is larger than $\frac{1}{2}$

inch or 12 mm in nominal internal diameter (S8.9).

S7.3.12 Zinc chloride resistance. The outer cover of an air brake hose shall not show cracks visible under 7-power magnification after immersion in a 50 percent zinc chloride aqueous solution for 200 hours (S8.11).

S7.3.13 End fitting corrosion resistance. After 24 hours of exposure to salt spray, air brake hose end fittings shall show no base metal corrosion on the end fitting surface except where crimping or the application of labeling information causes a displacement of the protective coating.

S8. Test procedures—Air brake hose, brake hose assemblies, and brake hose end fittings.

S8.1 High temperature resistance test.

(a) Utilize a cylinder having the radius indicated in Table IV for the size of hose tested.

(b) Bind the hose around the cylinder and condition it in an air oven for 70 hours at 212° F.

(c) Cool the hose to room temperature, remove it from the cylinder and straighten it.

(d) Without magnification, examine the hose externally and cut the hose lengthwise and examine the inner tube.

S8.2 Low temperature resistance test.

(a) Utilize a cylinder having the radius indicated in Table IV for the size of hose tested.

(b) Condition the cylinder and the brake hose, in a straight position, in a cold box at minus 40° F. for 70 hours.

(c) With the hose and cylinder at minus 40° F., bend the hose 180 degrees around the cylinder at a steady rate in a period of 5 to 5 seconds.

S8.3 Oil resistance test. Utilize three test specimens and average the results.

S8.3.1 Preparation. Fashion a test specimen by cutting a rectangular block 2 inches long and not less than one-third of an inch in width, having a thickness of not more than one-sixteenth inch, from the brake hose and buff the specimen on both faces to ensure smooth surfaces.

S8.3.2 Measurement.

(a) Weigh each specimen to the nearest milligram in air (W1) and in distilled water (W2) at room temperature. If wetting is necessary to remove air bubbles, dip the specimen in acetone and thoroughly rinse it with distilled water.

(b) Immerse each specimen in ASTM No. 3 oil for 70 hours at 212° F. and then cool in ASTM No. 3 oil at room temperature for 30 to 60 minutes.

(c) Dip the specimen quickly in acetone and blot it lightly with filter paper.

(d) Weigh each specimen in a tared weighing bottle (W3) and in distilled water (W4) within five minutes of removal from the cooling liquid.

(e) Calculate the percentage increase in volume follows:

$$\text{Percent of increase} = \frac{(W_4 - W_3) - (W_2 - W_1)}{(W_4 - W_3) \times 100}$$

S8.4 Ozone resistance test. Conduct the test specified in S6.8 using air brake hose.

S8.5 Length change test.

(a) Position a test hose in a straight, horizontal position, and apply air pressure of 10 psi thereto.

(b) Measure the hose to determine original free length.

(c) Without releasing the 10 psi, raise the air pressure to the test hose to 200 psi.

(d) Measure the hose under 200 psi to determine final free length. An elongation or contraction is an increase or decrease, respectively, in the final free length from the original free length of the hose.

S8.6 Adhesion test.

S8.6.1 Apparatus. Utilize a power-driven apparatus of the inclination balance or pendulum type which is constructed so that:

(a) The recording head includes a freely rotating form with an outside diameter substantially the same as the inside diameter of the hose specimen to be placed on it.

(b) The freely rotating form is mounted so that its axis of rotation is in the plane of the ply being separated from the specimen and so that the applied force is perpendicular to the tangent of the specimen circumference at the line of separation.

(c) The rate of travel of the power-actuated grip is a uniform 1 inch per

minute and the capacity of the machine is such that maximum applied tension during the test is not more than 85 percent nor less than 15 percent of the machine's rated capacity.

(d) The machine operates with no device for maintaining maximum load indication, and in a pendulum type machine, the weight lever swings as a free pendulum without engagement of pawls.

(e) The machine produces a chart with inches of separation as one coordinate and applied tension as the other.

S8.6.2 Preparation.

(a) Cut a test specimen of 1 inch or more in length from the hose to be tested and cut the layer to be tested of that test specimen longitudinally along its entire length to the level of contact with the adjacent layer.

(b) Peel the layer to be tested from the adjacent layer to create a flap large enough to permit attachment of the power-actuated clamp of the apparatus.

(c) Mount the test specimen on the freely rotating form with the separated layer attached to the power-actuated clamp.

S8.6.3 (Reserved)

S8.6.4 Calculations.

(a) The adhesion value shall be the minimum force recorded on the portion of the chart corresponding to the actual separation of the part being tested.

(b) Express the force in pounds per inch of length.

S8.7 Air pressure test.

(a) Connect the air brake hose assembly to a source of air pressure.

(b) Apply 200 psi air pressure to the hose and seal the hose from the source of air pressure.

(c) After 5 minutes determine the air pressure remaining in the test specimen.

S8.8 Burst strength test.

(a) Utilize an air brake hose assembly.

(b) Fill the hose assembly with water, allowing all gases to escape. Apply water pressure at a uniform rate of increase of approximately 1,000 psi per minute until the hose ruptures.

S8.9 Tensile strength test. Utilize a tension testing machine conforming to

the requirements of the Methods of Verification of Testing Machines (1964 American Society for Testing and Materials, Designation E4), and provided with a recording device to register total pull in pounds.

(a) Attach an air brake hose assembly to the testing machine to permit straight, even, machine-pull on the hose.

(b) Apply tension at a rate of 1 inch per minute travel of the moving head until separation occurs.

S8.10 Water Absorption and tensile strength test. Immerse an air brake hose assembly in distilled water at room temperature for 70 hours. Thirty minutes after removal from the water, conduct the test specified in S8.9.

S8.11 Zinc chloride resistance test. Immerse an air brake hose in a 50 percent zinc chloride aqueous solution at room temperature for 200 hours. Remove it from the solution and examine it under 7-power magnification for cracks.

S8.12 End fitting corrosion resistance test. Conduct the test specified in S6.9 using an air brake hose assembly.

S9. Requirements—vacuum brake hose, brake hose assemblies, and brake hose end fittings.

S9.1 Labeling.

S9.1.1 Hose. Each vacuum brake hose shall be labeled, or cut from bulk hose that is labeled, at intervals of not more than 6 inches, measured from the end of one legend to the beginning of the next, in block capital letters and numerals at least one-eighth of an inch high, with the information listed in paragraphs (a) through (e). The information need not be present on hose after it has become part of a brake hose assembly or after it has been installed in a motor vehicle.

(a) The symbol DOT, constituting a certification by the hose manufacturer that the hose conforms to all applicable motor vehicle safety standards.

(b) A designation that identifies the manufacturer of the hose, which shall be filed in writing with: Office of Vehicle Safety Standards, Crash Avoidance Division, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590. The designation may consist of block capital letters, numerals or a symbol.

(c) The month, day, and year, or the month and year, of manufacture, expressed in numerals. For example, 10/1/74 means October 1, 1974.

(d) The nominal inside diameter of the hose expressed in inches or fractions of inches or in millimeters, or the nominal outside diameter of plastic tubing expressed in inches or fractions of inches or in millimeters followed by the letters OD. The abbreviation "mm" shall follow hose sizes that are expressed in millimeters. (Example of inside diameter: $\frac{3}{32}$, $\frac{1}{4}$, 4 mm. Example of outside diameter: $\frac{1}{4}$ OD, 12 mm OD.)

(e) The letters "VL" or "VH" shall indicate that the component is a light-duty vacuum brake hose or heavy-duty vacuum brake hose, respectively.

S9.1.2 End Fittings. Except for an end fitting that is attached by heat striking or by interference fit with plastic vacuum hose or that is attached by deformation of the fitting about a hose by crimping or swaging, at least one component of each vacuum brake hose fitting shall be etched, embossed, or stamped in block capital letters and numerals at least one-sixteenth of an inch high with the following information:

(a) The symbol DOT, constituting a certification by the manufacturer of that component that the component conforms to all applicable motor vehicle safety standards.

(b) A designation that identifies the manufacturer of that component of the fitting, which shall be filed in writing with: Office of Vehicle Safety Standards Crash Avoidance Division, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590. The designation may consist of block capital letters, numerals or a symbol.

(c) The letters "VL" or "VH" shall indicate that the end fitting is intended for use in a light-duty or heavy-duty vacuum brake system, respectively.

(d) The nominal inside diameter of the hose to which the fitting is properly attached expressed in inches or fractions of inches or in millimeters, or the outside diameter of the plastic tubing to which the fitting is properly attached expressed in inches or frac-

tion of inches or in millimeters followed by the letter OD (See examples in S9.1.1(d)). The abbreviation "mm" shall follow hose sizes that are expressed in millimeters.

S9.1.3 Assemblies. Each vacuum brake hose assembly made with end fittings that are attached by crimping or swaging and each plastic tube assembly made with end fittings that are attached by heat shrinking or dimensional interference fit, except those assembled and installed by a vehicle manufacturer in vehicles manufactured by him, shall be labeled by means of a band around the brake hose assembly as specified in this paragraph or, at the option of the manufacturer, by means of labeling as specified in S9.1.3.1. The band may at the manufacturer's option be attached so as to move freely along the length of the assembly, as long as it is retained by the end fittings. The band shall be etched, embossed, or stamped, in block capital letters and numerals at least one-eighth of an inch high, with the following information:

(a) The symbol DOT, constituting certification by the hose assembler that the hose assembly conforms to all applicable motor vehicle safety standards.

(b) A designation that identifies the manufacturer of the hose assembly, which shall be filed in writing with: Office of Vehicle Safety Standards, Crash Avoidance Division, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590. The designation may consist of block capital letters, numerals or a symbol.

S9.1.3.1 At least one end fitting of a vacuum brake hose assembly made with end fittings that are attached by crimping or swaging, or of a plastic tubing assembly made with end fittings that are attached by heat shrinking or dimensional interference fit shall be etched, stamped or embossed with a designation at least one-sixteenth of an inch high that identifies the manufacturer of the hose assembly and is filed in accordance with S9.1.3(b).

S9.2 Test requirements. Each vacuum brake hose assembly or appro-

priate part thereof shall be capable of meeting any of the requirements set forth under this heading, when tested under the conditions of S11, and the applicable procedures of S10. However, a particular hose assembly or appropriate part thereof need not meet further requirements after having met the construction requirement (S9.2.1) and then having been subjected to any one of the requirements specified in S9.2.2 through S9.2.11.

S9.2.1 Constriction. Except for that part of an end fitting which does not contain hose, every inside diameter of any section of a vacuum brake hose assembly shall be not less than 75 percent of the nominal inside diameter of the hose if for heavy duty, or 70 percent of the nominal inside diameter of the hose if for light duty.

S9.2.2 High temperature resistance. A vacuum brake hose shall not show external or internal cracks, charring, or disintegration visible without magnification when straightened after being bent for 70 hours at 212° F. over a cylinder having the radius specified in Table V for the size of hose tested (S10.1).

S9.2.3 Low temperature resistance. A vacuum brake hose shall not show cracks visible without magnification after conditioning at minus 40° F. for 70 hours when bent around a cylinder having the radius specified in Table V for the size hose tested (S10.2).

S9.2.4 Ozone resistance. A vacuum brake hose shall not show cracks visible under 7-power magnification after exposure to ozone for 70 hours (S10.3).

S9.2.5 Burst strength. A vacuum brake hose shall not rupture under hydrostatic pressure of 350 psi (S10.4).

S9.2.6 Vacuum. The collapse of the outside diameter of a vacuum brake hose under internal vacuum of 28 inches of Hg. for five minutes shall not exceed one-sixteenth of an inch (S10.5).

S9.2.7 Bend. The collapse of the outside diameter of a vacuum brake hose at the middle point of the test length when bent until the ends touch shall not exceed the values given in Table V for the size of hose tested (S10.6).

TABLE V—VACUUM BRAKE HOSE TEST REQUIREMENTS

Hose inside diameter*		High temperature resistance		Low temperature resistance		Bend		Deformation—collapsed inside diameter (dimension D), inches
Inches	Millimeters	Hose length, inches	Radius of cylinder, inches	Hose length, inches	Radius of cylinder, inches	Hose length, inches	Maximum collapse of outside diameter, inches	
$\frac{1}{8}$	5	8	$1\frac{1}{2}$	$17\frac{1}{2}$	3	7	$\frac{1}{16}$	$\frac{3}{16}$
$\frac{1}{4}$	6	9	$1\frac{1}{2}$	$17\frac{1}{2}$	3	8	$\frac{3}{32}$	$\frac{1}{4}$
$\frac{3}{8}$	9	9	$1\frac{1}{4}$	19	$3\frac{1}{2}$	9	$\frac{1}{8}$	$\frac{3}{8}$
$\frac{1}{2}$	12	9	$1\frac{1}{4}$	19	$3\frac{1}{2}$	11	$\frac{3}{16}$	$\frac{1}{2}$
$\frac{5}{8}$	16	10	$1\frac{1}{4}$	19	$3\frac{1}{2}$	12	$\frac{1}{4}$	$\frac{5}{8}$
$\frac{3}{4}$	19	11	2	$20\frac{1}{2}$	4	14	$\frac{1}{4}$	$\frac{3}{4}$
$\frac{7}{8}$	22	11	2	$20\frac{1}{2}$	4	14	$\frac{1}{4}$	$\frac{7}{8}$
1	25	11	2	$20\frac{1}{2}$	4	16	$\frac{1}{4}$	1
$\frac{1}{2}$	12	11	2	$20\frac{1}{2}$	4	16	$\frac{1}{4}$	$\frac{1}{2}$
$\frac{3}{4}$	19	12	$2\frac{1}{4}$	22	$4\frac{1}{2}$	22	$\frac{1}{4}$	$\frac{3}{4}$
$\frac{1}{2}$	12	14	$2\frac{1}{4}$	24	5	26	$\frac{1}{4}$	$\frac{1}{2}$
1	25	16	$3\frac{1}{4}$	$28\frac{1}{2}$	$6\frac{1}{2}$	36	$\frac{1}{4}$	1

*These sizes are listed to provide test values for brake hoses manufactured in these sizes. They do not represent conversions.

S9.2.8 Swell. Following exposure to Reference Fuel A, every inside diameter of any section of a vacuum brake hose shall not be less than 75 percent of the nominal inside of the hose if for heavy duty, or 70 percent of the nominal inside diameter of the hose if for light duty. The vacuum brake hose shall show no leakage and there shall be no separation of the inner tube from the fabric reinforcement of the hose in a vacuum test of 26 inches of Hg for 10 minutes (S10.7).

S9.2.9 Adhesion. Except for hose reinforced by wire, a vacuum brake hose shall withstand a force of 8 pounds per inch of length before separation of adjacent layers (S10.8).

S9.2.10 Deformation. A vacuum brake hose shall return to 90 percent of its original outside diameter within 60 seconds after five applications of force as specified in S10.9, except that a wire-reinforced hose need only return to 85 percent of its original outside diameter. In the case of heavy-duty hose the first application of force shall not exceed a peak value of 70 pounds, and the fifth application of force shall reach a peak value of at least 40 pounds. In the case of light-duty hose the first application of force shall not exceed a peak value of 50 pounds, and the fifth application of force shall reach a peak value of at least 20 pounds (S10.9).

S9.2.11 End fitting corrosion resistance. After 24 hours of exposure to salt spray, vacuum brake hose end fittings

shall show no base metal corrosion of the end fitting surface except where crimping or the application of labeling information has caused displacement of the protective coating.

S10. Test procedures—Vacuum brake hose, brake hose assemblies, and brake hose end fittings.

S10.1 High temperature resistance test. Conduct the test specified in S8.1 using vacuum brake hose with the cylinder radius specified in Table V for the size of hose tested.

S10.2 Low temperature resistance test. Conduct the test specified in S8.2 using vacuum brake hose with the cylinder radius specified in Table V for the size of hose tested.

S10.3 Ozone resistance test. Conduct the test specified in S6.8 using vacuum brake hose.

S10.4 Burst strength test. Conduct the test specified in S8.8 using vacuum brake hose.

S10.5 Vacuum test. Utilize a 12-inch vacuum brake hose assembly sealed at one end.

(a) Measure the hose outside diameter.

(b) Attach the hose to a source of vacuum and subject it to a vacuum of 26 inches of Hg for 5 minutes.

(c) Measure the hose to determine the minimum outside diameter while the hose is still subject to vacuum.

S10.6 Bend test.

(a) Bend a vacuum brake hose, of the length prescribed in Table V, in the direction of its normal curvature

until the ends just touch as shown in Figure 3.

(b) Measure the outside diameter of the specimen at point A before and after bending.

(c) The difference between the two measurements is the collapse of the hose outside diameter on bending.

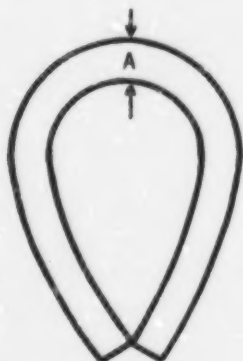


FIG. 3—BEND TEST OF VACUUM BRAKE HOSE.

S10.7 Swell test.

(a) Fill a specimen of vacuum brake hose 12 inches long with Reference Fuel A as described in the Method of Test for Change in Properties of Elastomeric Vulcanizers Resulting From Immersion in Liquids (1964 American Society for Testing and Materials, designation D471).

(b) Maintain reference fuel in the hose under atmospheric pressure at room temperature for 48 hours.

(c) Remove fuel and determine that every inside diameter of any section of the brake hose is not less than 75 percent of the nominal inside diameter of the hose for heavy-duty hose and 70 percent of the nominal inside diameter of the hose for light-duty hose.

(d) Subject the hose specimen to a vacuum of 26 inches of Hg for 10 minutes.

S10.8 Adhesion test. Conduct the test specified in S8.6 using vacuum brake hose.

S10.9 Deformation test. Table VI specifies the test specimen dimensions.

S10.9.1 Apparatus. Utilize a compression device, equipped to measure force of at least 100 pounds, and feeler

gages of sufficient length to be passed completely through the test specimen.

S10.9.2 Operation.

(a) Position the test specimen longitudinally in the compression device with the fabric laps not in the line of the applied pressure.

TABLE VI—DIMENSIONS OF TEST SPECIMEN AND FEELER GAGE FOR DEFORMATION TEST

Hose inside diameter*		Specimen dimensions (see fig. 4)		Feeler gage dimensions	
In.	Mm.	Depth (inch)	Length (inch)	Width (inch)	Thickness (inch)
1/32	5	3/16	1	1/8	3/16
1/16	6	1/4	1	1/8	1/16
3/32	8	1/4	1	1/8	3/32
1/16	8	3/16	1	3/16	3/16
3/16	10	3/16	1	3/16	3/16
1/8	10	3/16	1	1/8	3/16
1/8	12	3/16	1	1/8	3/16
1/4	12	1/2	1	1/4	1/4
3/8	16	3/8	1	1/4	3/8
3/8	16	3/8	1	1/4	3/8
1	25	1	1	1	1

*These sizes are listed to provide test values for brake hoses manufactured in these sizes. They do not represent conversions.

(b) Apply gradually increasing force to the test specimen to compress its inside diameter to that specified in Table VI (dimension D of figure 4) for the size of hose tested.

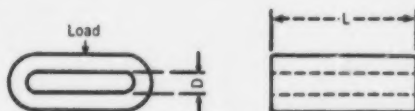


FIG. 4. DEFORMED SPECIMEN OF VACUUM BRAKE HOSE

(c) After 5 seconds release the force and record the peak load applied.

(d) Repeat the procedure four times permitting a 10-second recovery period between load applications.

S10.10 End fitting corrosion resistance test. Conduct the test specified in S6.9 using a vacuum brake hose assembly.

S11. Test conditions. Each hose assembly or appropriate part thereof shall be able to meet the requirements of S5., S7., and S9. under the following conditions.

S11.1 The temperature of the testing room is 75° F.

S11.2 Except for S6.6, S8.2, and S10.2, the test samples are stabilized at test room temperature prior to testing.

S11.3 The brake hoses and brake hose assemblies are at least 24 hours old, and unused.

S12. Notwithstanding any other provision of this standard, a brake hose assembly shall meet each requirement of this standard, except that the assembly may be constructed of brake hose which meets every requirement of the standard for hose other than the hose labeling requirements of S5.2, S7.2, and S9.1, and the assembly may be constructed of end fittings which meet every requirement of the standard for end fittings other than the end fitting labeling requirements of S5.2, S7.2, and S9.1.

S13. Notwithstanding any other provision of this standard, a vehicle to which this standard applies shall be equipped with brake hose, brake hose end fittings, and brake hose assemblies that meet each requirement of this standard, with the following exceptions:

(a) The vehicle may be equipped with brake hose that meets every requirement of the standard for hose other than the hose labeling requirements of S5.2, S7.2, and S9.1;

(b) The vehicle may be equipped with end fittings that meet every requirement of the standard for end fittings other than the end fitting labeling requirements of S5.2, S7.2, and S9.1; and

(c) The vehicle may be equipped with brake hose assemblies that meet every requirement of the standard for assemblies other than the assembly labeling requirements of S5.2, S7.2, and S9.1.

[38 FR 31303, Nov. 13, 1973, as amended at 39 FR 3680, Jan. 29, 1974; 39 FR 7427, Feb. 26, 1974; 39 FR 24015, June 28, 1974; 39 FR 28436, Aug. 7, 1974; 39 FR 39725, Nov. 11, 1974; 40 FR 12089, Mar. 17, 1975, 40 FR 32336, Aug. 1, 1975; 40 FR 38159, Aug. 27, 1975; 41 FR 28506, July 12, 1976; 41 FR 52055, Nov. 26, 1976; 43 FR 22362, May 25, 1978; 47 FR 47838, Oct. 28, 1982; 50 FR 4691, Feb. 1, 1985]

§ 571.107 Standard No. 107; Reflecting surfaces.

S1. *Purpose and scope.* This standard specifies reflecting surface requirements for certain vehicle components in the driver's field of view.

S2. *Application.* This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses.

S3. *Definitions.*

"Field of view" means the area forward of a lateral vertical plane which is located tangent to the rearmost boundary of the SAE 99th percentile eye range contour of SAE Recommended Practice J941, November 1965. "Specular gloss" means the luminous fractional reflectance of a specimen at the specular direction.

S4. *Requirements.* The specular gloss of the surface of the materials used for the following bright metal components in the driver's field of view shall not exceed 40 units when measured by the 20° method of ASTM Standard D523-62T, June 1962:

(a) Windshield wiper arms and blades;

(b) Inside windshield mouldings;

(c) Horn ring and hub of steering wheel assembly; and

(d) Inside rearview mirror frame and mounting bracket.

§ 571.108 Standard No. 108; Lamps, reflective devices, and associated equipment.

S1. *Purpose and scope.* This standard specifies requirements for original and replacement lamps, reflective devices, and associated equipment necessary for signaling and for the safe operation of motor vehicles during darkness and other conditions of reduced visibility.

S2. *Application.* This standard applies to passenger cars, multipurpose passenger vehicles, trucks, buses, trailers (except pole trailers and trailer converter dollies), and motorcycles, and to lamps, reflective devices, and associated equipment for replacement of like equipment on vehicles to which this standard applies.

S3. *Definitions.* "Aiming Reference Plane" means a plane which is perpendicular to the longitudinal axis of the vehicle and tangent to the forward-most aiming pad on the headlamp.

"Flash" means a cycle of activation and deactivation of a lamp by automatic means continuing until stopped either automatically or manually.

"Headlamp test fixture" means a device designed to support a replaceable bulb headlamp in the test position specified in the laboratory tests in S4.1.1.36(d), and whose mounting hardware and components are those necessary to operate the headlamp as installed in a motor vehicle.

"Replaceable bulb headlamp" means a headlamp comprising a bonded lens and reflector assembly and one or two standardized replaceable light sources.

"Seasoning" means a process of energizing the filament of a headlamp, at design voltage, for a period of time equal to 1 percent of average rated laboratory life.

"Standardized replaceable light source" means an assembly of a headlamp bulb, base, and terminals, as described in Figure 3.

"Type 1" means a headlamp, with only an upper beam filament, whose identification code begins with the numeral "1".

"Type 2" means a headlamp, with both upper and lower beam filaments, whose identification code begins with the numeral "2".

S4. Requirements.

S4.1 Required motor vehicle lighting equipment.

S4.1.1 Except as provided in succeeding paragraphs of S4.1.1, each vehicle shall be equipped with at least the number of lamps, reflective devices, and associated equipment specified in Tables I and III, as applicable. Required equipment shall be designed to conform to the SAE Standards or Recommended Practices referenced in those tables. Table I applies to multipurpose passenger vehicles, trucks, trailers, and buses, 80 or more inches in overall width. Table III applies to passenger cars and motorcycles and to multipurpose passenger vehicles, trucks, trailers, and buses, less than 80 inches in overall width.

S4.1.1.1 A truck tractor need not be equipped with turn signal lamps mounted on the rear if the turn signal lamps at or near the front are so constructed (double-faced) and so located that they meet the requirements for

double-faced turn signals specified in SAE Standard J588e, "Turn Signal Lamps," September 1970.

S4.1.1.2 A truck tractor need not be equipped with any rear side marker devices, rear clearance lamps, and rear identification lamps.

S4.1.1.3 Intermediate side marker devices are not required on vehicles less than 30 feet in overall length.

S4.1.1.4 Reflective material conforming to Federal Specification L-S-300, "Sheeting and Tape, Reflective; Non-exposed Lens, Adhesive Backing," September 7, 1965, may be used for side reflex reflectors if this material as used on the vehicle, meets the performance standards in either Table I or Table IA of SAE Standard J594f, "Reflex Reflectors", January 1977.

S4.1.1.5 The turn signal operating unit on each passenger car, and multipurpose passenger vehicle, truck, and bus less than 80 inches in overall width manufactured on or after January 1, 1973, shall be self-canceling by steering wheel rotation and capable of cancellation by a manually operated control.

S4.1.1.6 Each stop lamp on any motor vehicle manufactured between January 1, 1973, and September 1, 1978, may be designed to conform to SAE Standard J586b, *Stop Lamps*, June 1966. It shall meet the photometric minimum candlepower requirements for class A red turn signal lamps specified in SAE Standard J575d, *Test for Motor Vehicle Lighting Devices and Components*, August 1967. Each such lamp on a passenger car and on a multipurpose passenger vehicle, truck, trailer or bus less than 80 inches in overall width shall have an effective projected luminous area not less than $3\frac{1}{2}$ square inches. If multiple compartment lamps or multiple lamps are used, the effective projected luminous area of each compartment or lamp shall be not less than $3\frac{1}{2}$ square inches; however, the photometric requirements may be met by a combination of compartments or lamps.

S4.1.1.7 Each turn signal lamp on any motor vehicle, except motorcycles, manufactured between January 1, 1972, and September 1, 1978, may be designed to conform to SAE Standard J588d, *Turn Signal Lamps*, June 1966,

and shall meet the photometric minimum candlepower requirements for Class A turn signal lamps specified in SAE Standard J575d, *Tests, for Motor Vehicle Lighting Devices and Components*, August 1967. Each such lamp on a passenger car and on a multipurpose passenger vehicle, truck, trailer or bus less than 80 inches in overall width shall have an effective projected luminous area not less than $3\frac{1}{2}$ square inches. If multiple compartment lamps or multiple lamps are used, the effective projected luminous area of each compartment or lamp shall be not less than $3\frac{1}{2}$ square inches; however, the photometric requirements may be met by a combination of compartments or lamps. Each such lamp on a multipurpose passenger vehicle, truck, trailer or bus 80 inches or more in overall width shall have an effective projected luminous area not less than 12 square inches.

S4.1.1.8 For each motor vehicle less than 30 feet in overall length, the photometric-minimum candlepower requirements for side marker lamps specified in SAE Standard J592e "Clearance, Side Marker, and Identification Lamps", July 1972, may be met for all inboard test points at a distance of 15 feet from the vehicle and on a vertical plane that is perpendicular to the longitudinal axis of the vehicle and located midway between the front and rear side marker lamps.

S4.1.1.9 Boat trailers need not be equipped with both front and rear clearance lamps provided an amber (to front) and red (to rear) clearance lamp is located at or near the midpoint on each side of the trailer so as to indicate its extreme width.

S4.1.1.10 Multiple license plate lamps and backup lamps may be used to fulfill the requirements of the SAE Standards applicable to such lamps referenced in Tables I and III.

S4.1.1.11 A parking lamp, tail lamp, stop lamp, or turn signal lamp shall meet the minimum percentage specified in Figure 1a of the corresponding minimum allowable value specified in Figure 1b. The maximum candlepower output of each stop, turn signal, tail and parking lamp shall not exceed that prescribed in Figure 1b. The values specified in Figure 1a and

Figure 1b are substituted for those specified in Table 1 of the following SAE Standards: J222 *Parking Lamps*, J585e *Taillamps* (maximum at H or above), J585c *Stop Lamps*, and J588e *Turn Signal Lamps*, except that motorcycle turn signal lamps need meet only one-half of the minimum photometric values specified in Figure 1b.

S4.1.1.12 A parking lamp, taillamp, stop lamp or turn signal lamp is not required to meet the minimum photometric value at each test point specified in this standard if the sum of the percentages of the minimum candlepower measured at the test points is not less than that specified for each group listed in Figure 1c.

FIGURE 1a—REQUIRED PERCENTAGES OF MINIMUM CANDLEPOWER OF FIGURE 1b.

Test points (deg)		Turn signal	Stop	Parking	Tail
10U, 10D	5L, 5R	20	20	20	20
5U, 5D	20L, 20R	12.5	12.5	10	15
	10L, 10R	37.5	37.5	20	40
	V	87.5	87.5	70	90
H	10L, 10R	50	50	35	40
	5L, 5R	100	100	90	100
	V	100	100	100	100

Note.—Minimum design candlepower requirements are determined by multiplying the percentages given in this Figure by the minimum allowable candlepower values in Figure 1b. The resulting values shall be truncated after one digit to the right of the decimal point.

FIGURE 1b—MINIMUM AND MAXIMUM ALLOWABLE CANDLEPOWER VALUES

Lamp	Lighted sections		
	1	2	3
Stop	80/300	95/360	110/420
Tail ¹	2/18	3.5/20	5.0/25
Parking ²	4.0/125		
Red turn signal	80/300	95/360	110/420
Yellow turn signal rear	130/750	150/900	175/1050
Yellow turn signal front	200/-	240/-	275/-
Yellow turn signal front ³	500/-	600/-	685/-

¹ Maximum at H or above.

² The maximum candlepower value of 125 applies to all test points at H or above. The maximum allowable candlepower value below H is 250.

³ Values apply when the optical axis (filament center) of the front-turn signal is at a spacing less than 4 in. (10 cm.) from the lighted edge of the headlamp unit providing the lower beam, or from the lighted edge of any additional lamp installed as original equipment or used in lieu of the lower beam.

FIGURE 1c—Sum of the Percentages of Grouped Minimum Candlepower

Group and test points	Turn signal	Stop	Parking	Tail
1 10U-5L, 5U-20L, 5D-20L, 10D-5L	65	65	60	70
2 5U-10L, H-10L, 5D-10L	125	125	75	120
3 H-5L, 5U-V, H-V, 5D-V, H-5R	475	475	420	480
4 5U-10R, H-10R, 5D-10R	125	125	75	120
5 10U-5R, 5U-20R, 5D-20R, 10D-5R	65	65	60	70

S4.1.1.13 Instead of headlamps designed to conform to the requirements of Table 1 and Table III, a passenger car, multipurpose passenger vehicle, truck, or bus may be equipped with two white headlamps that are designed to conform to:

(a) The requirements of SAE Standard J571d "Dimensional Specifications for Sealed Beam Headlamp Units", June 1976, that apply to Type 2A sealed beam headlamp units, except that the designation "2A" shall not appear on the lens, and the ground terminal shall be rotated clockwise 45 degrees; and

(b) The requirements of SAE Standard J579c "Sealed Beam Headlamp Units for Motor Vehicles", December 1974, and subreferenced standards, that apply to Type 2 headlamp units;

(c) SAE Standard J580b "Sealed Beam Headlamp Assembly"; February 1974.

S4.1.1.14 The lens of each headlamp that conforms with paragraph S4.1.1.13 shall be marked with the symbol "DOT" (printed horizontally) or "DOT" (printed vertically) which shall constitute a certification that the headlamp conforms to all applicable Federal motor vehicle safety standards, and shall be labelled 2E1.

S4.1.1.15 At a voltage of 12.8 volts, the maximum design wattage for the upper and lower beams of each Type 2E1 headlamp shall be 70 watts for the upper beam and 60 watts for the lower beam.

S4.1.1.16 All passenger cars and multipurpose passenger vehicles, trucks, and buses of less than 80 inches overall width shall be equipped with turn signal operating units designed to complete a durability test of 100,000 cycles.

S4.1.1.17 A trailer that is less than 30 inches in overall width may be equipped with only one of each of the following lamps and reflective devices, located at or near its vertical centerline: Tail lamp, stop lamp, and rear reflex reflector.

S4.1.1.18 A trailer that is less than 6 feet in overall length, including the trailer tongue, need not be equipped with front side marker lamps and front side reflex reflectors.

S4.1.1.19 A lamp manufactured on or after January 1, 1974, and designed to use a type of bulb that has not been assigned a mean spherical candlepower rating by its manufacturer and is not listed in SAE Standard J573d, "Lamp Bulbs and Sealed Units," December 1968, shall meet the applicable requirements of this standard when used with any bulb of the type specified by the lamp manufacturer, operated at the bulb's design voltage. A lamp that contains a sealed-in bulb shall meet these requirements with the bulb operated at the bulb's design voltage.

S4.1.1.20 Except for a lamp having a sealed-in bulb, a lamp manufactured on or after January 1, 1974 shall meet the applicable requirements of this standard when tested with a bulb whose filament is positioned within ± 0.10 inch of the nominal design position specified in SAE Standard J573d, "Lamp Bulbs and Sealed Units," December 1968, or specified by the bulb manufacturer.

S4.1.1.21 The lens of each headlamp designed to conform to SAE Standard J579c, *Sealed Beam Headlamp Units for Motor Vehicles*, December 1974, manufactured on or after July 1, 1979, shall be marked with the symbol

"DOT" or "D
O
T"

which shall constitute a certification that the headlamp conforms to applicable Federal motor vehicle safety standards, and with one of the following designations as appropriate:

(a) A lens for rectangular headlamp (100 x 165 mm) incorporating an upper beam only shall be labeled 1A1.

(b) A lens for a rectangular headlamp (100 x 165 mm) incorporating both an upper beam and a lower beam shall be labeled 2A1.

(c) A lens for a rectangular headlamp (142 x 200 mm) incorporating both an upper beam and a lower beam, shall be labeled 2B1.

(d) A lens for a circular headlamp (146-mm diameter) incorporating an upper beam only shall be labeled 1C1.

(e) A lens for a circular headlamp (146-mm diameter) incorporating both an upper and a lower beam shall be labeled 2C1.

(f) A lens for a circular headlamp (178-mm diameter) incorporating both an upper beam and a lower beam shall be labeled 2D1.

The lens of each headlamp designed to conform to SAE Standard J579c and manufactured before July 1, 1979, may be labeled as specified above.

S4.1.1.22 A backup lamp is not required to meet the minimum photometric values at each test point specified in Table I of SAE Standard J593c "Backup Lamps" if the sum of the candlepower measured at the test points within each group listed in Figure 2 is not less than the group totals specified in that figure.

FIGURE 2—MINIMUM LUMINOUS INTENSITY REQUIREMENTS FOR BACKUP LAMPS

Group	Test point, degrees	Total for group, candela (see note 1)
1 ¹	45L-5U, 45L-H, 45L-5D	45
2 ¹	30L-H, 30L-5D	50
3	10L-10U, 10L-5U, V-10U, V-5U, 10R-10U, 10R-5U	100
4	10L-H, 10L-5D, V-H, V-5D, 10R-H, 10R-5D	360
5 ¹	30R-H, 30R-5D	50
6 ¹	45R-5U, 45R-H, 45R-5D	45

¹ When 2 lamps of the same or symmetrically opposite design are used, the reading along the vertical axis and the averages of the readings for the same angles left and right of vertical for 1 lamp shall be used to determine compliance with the requirements. If 2 lamps of differing designs are used, they shall be tested individually and the values added to determine that the combined units meet twice the candela requirements.

When only 1 backup lamp is used on the vehicle, it shall be tested to twice the candela requirements.

S4.1.1.23 Variable load turn signal flashers shall comply with voltage drop and durability requirements with the maximum design load connected

and shall comply with starting time, flash rate, and percent current "on" time requirements both with the minimum and with the maximum design load connected.

S4.1.1.24 The lowest voltage drop for turn signal flashers and hazard warning signal flashers measured between the input and load terminals shall not exceed 0.8 volt.

S4.1.1.25 The dimensional specifications for headlamp unit retaining rings of Figures 2(B), 5(B), and 8(B) of SAE Standard J571d "Dimensional Specifications for Sealed Beam Headlamp Units," June 1976, and of Figure 2(B), SAE Recommended Practice J1132 "142 mm x 200 mm Sealed Beam Headlamp Unit," January 1976, do not apply.

S4.1.1.26 A motor-driven cycle whose speed attainable in 1 mile is 30 mph or less need not be equipped with turn signal lamps.

S4.1.1.27 A motor-driven cycle whose speed attainable in 1 mile is 30 m.p.h. or less may be equipped with a stop lamp whose effective projected luminous lens area is not less than 3½ square inches and whose photometric output for the groups of test points specified in Figure 1 is at least one-half of the minimum values set forth in that figure.

S4.1.1.28 Each taillamp on any motor vehicle manufactured before July 1, 1980, may be designed to conform to SAE Standard J585d, *Tail Lamps*, August 1970.

S4.1.1.29 Each turn signal lamp on a motorcycle manufactured between January 1, 1973, and September 1, 1978, may be designed to conform to SAE Standard J588d, *Turn Signal Lamps*, June 1966.

S4.1.1.30 [Reserved]

S4.1.1.31 Each turn signal lamp on a motorcycle manufactured on and after January 1, 1973, shall have an effective projected luminous area not less than 3½ square inches.

S4.1.1.32 Note 6 of Table 1 in SAE Standard J588e, *Turn Signal Lamps*, September 1970, does not apply. A stop lamp that is not optically combined with a turn signal lamp shall remain activated when the turn signal is flashing.

S4.1.1.33 At a voltage of 12.8 volts, the maximum design wattage for upper and lower beams on headlamps designed to conform to SAE Standard J579c, *Sealed Beam Headlamp Units for Motor Vehicles*, December 1974, shall be as follows: 55 watts for upper beam on Type 1A1 and Type 1C1, 43 watts for upper beam and 65 watts for lower beam on Type 2A1 and Type 2C1, 70 watts for upper beam and 60 watts for lower beam on Type 2B1, 65 watts for upper beam and 55 watts for lower beam on Type 2D1.

S4.1.1.34 A motorcycle may be equipped with one of the following headlighting systems:

System	Headlamp type	Number of headlamps
1	Type 1C1 or type 1 (5 1/4 in.) and either Type 2C1 or type 2 (5 1/4 in.)	1 lamp.
2	Type 2D1 or type 2 (7 in.)	1 or 2 lamps
3	Type 1A1 or type 1A and either Type 2A1 or type 2A	1 lamp.
4	Type 2B1 or type 2B	1 or 2 lamps
5	Type 2E1	1 lamp
6	Type UF	1 lamp.
	Type LF	1 lamp.

S4.1.1.35 Each headlamp on a passenger car, multipurpose passenger vehicle, truck, or bus manufactured on or before September 30, 1979, may be designed to conform with SAE Standard J580a, *Sealed Beam Headlamp*, June 1966.

S4.1.1.36 Instead of being equipped with a headlighting system specified in Table I or Table III, a motor vehicle manufactured on or after July 1, 1983, may be equipped with a system of one or two replaceable bulb headlamps, if the vehicle is a motorcycle, or two or four replaceable bulb headlamps, if the vehicle is a passenger car, multipurpose passenger vehicle, truck or bus. Each replaceable bulb headlamp shall be designed to conform to the following requirements.

(a)(1) Each replaceable bulb headlamp shall include components which are designed to conform to the applicable specifications of paragraph S4.1.1.38 and Figure 3—*Specifications For The Standardized Replaceable Light Source*, including filament location, base and socket dimensions, elec-

trical connector dimensions, and maximum design wattage.

(2) The exterior face of each replaceable bulb headlamp lens shall have three pads which meet the requirements of Figure 4, *Dimensional Specifications for Location of Aiming Pads on Replaceable Bulb Headlamp Units*, and which form an aiming plane for mechanically adjusting and inspecting headlamp aim. The lens of each replaceable bulb headlamp shall have three pads which meet the requirements of Figure 4. Except as provided in subparagraph (a)(3), a whole number, which represents the distance in tenths of an inch (i.e., 0.3 inch=3) from the aiming reference plane to the respective aiming pads which are not in contact with that plane, shall be inscribed adjacent to each respective aiming pad on the lens. The height of these numbers shall be not less than .157 inch (4 mm). If there is interference between the plane and the area of the lens between the aiming pads, the whole number will represent the distance to a secondary plane. The secondary plane shall be located parallel to the aiming reference plane and as close to the lens as possible without causing interference.

(3) If the most forward aiming pad is the lower inboard aiming pad, then the dimensions may be placed anywhere on the lens. The dimension for the outboard aiming pad (Dimension F in Figure 4) shall be followed by the letter "H" and the dimension for the center aiming pad shall be followed by the letter "V". The dimensions shall be expressed in tenths of an inch.

(b) Each replaceable bulb headlamp shall be designed to conform to the following sections of the specified SAE Standards and Recommended Practices with any standardized replaceable light source intended for use in such headlamp:

(1) Section 4.6—Photometry of SAE J575 "Tests for Motor Vehicle Lighting Devices and Components" June 80.

(2) Section 3.1—Test Voltage, and Section 3.5—Photometric Design Requirements, excluding Table 2, of SAE J579c "Sealed Beam Headlamp Units for Motor Vehicles" December 1978. The term "aiming plane" in paragraph

3.5 of SAE J579c shall mean "aiming reference plane."

(3) Section 5—General Requirements, Section 6—Design Requirements and Tests (to the extent listed below), Section 6.1—Aiming Adjustment Test, Section 6.2—Inward Force Test, and Section 6.4—Connector Tests of SAE J580 "Sealed Beam Headlamp Assembly" August 1979.

(c) A headlamp with a glass lens need not meet the following tests of the sections specified: abrasion resistance (S6.2), chemical resistance (S6.4), and impact (S6.9). If, in addition to a glass lens, the headlamp uses a non-plastic reflector, it need not meet the internal heat test of paragraph S6.7.2.

(d) When tested according to any of the procedures indicated in paragraphs (d)(1) through (d)(8), a replaceable bulb headlamp shall meet the appropriate requirement:

(1) After an abrasion test conducted in accordance with S6.2, the headlamp shall meet the photometric requirements of SAE J579c, "Sealed Beam Headlamp Units for Motor Vehicles" December 1978.

(2) After a vibration test conducted in accordance with S6.3, there shall be no evidence of loose or broken parts visible without magnification, except that the filament need not be unbroken.

(3) After a chemical resistance test involving exposure to any of the fluids listed in S6.4, there shall be no surface deterioration, coating delamination, fractures, deterioration of bonding materials, color bleeding or color pick-up visible without magnification, and the headlamp shall meet the photometric requirements of SAE J579c, "Sealed Beam Headlamp Units for Motor Vehicles" December 1978.

(4) After a corrosion test conducted in accordance with S6.5, there shall be no evidence of external or internal corrosion or rust visible without magnification. Loss of adhesion of any applied coating shall not occur more than 0.125 in (3.2 mm) from any sharp edge on the inside or outside. Corrosion may occur on terminals only if the current produced during the test of paragraph S6.5(c) is not less than 9.7 amperes.

(5) After a dust test conducted in accordance with S6.6, the headlamp shall meet the photometric requirements of SAE J579c, "Sealed Beam Headlamp Units for Motor Vehicles" December 1978.

(6) The headlamp shall first meet the requirements of paragraph (d)(6)(A) and then those of paragraph (d)(6)(B).

(A) After a temperature cycle test conducted in accordance with S6.7.1, the headlamp shall show no evidence of delamination, fractures, entry of moisture or deterioration of bonding material, color bleeding, warpage or deformation visible without magnification, or lens warpage greater than .118 inch (3 mm) when measured perpendicular to the aiming plane at the point of intersection of the axis of each replaceable light source with the exterior surface of the lens, and it shall meet the photometric requirements of SAE J579c, "Sealed Beam Headlamp Units for Motor Vehicles" December 1978.

(B) After an internal heat test conducted in accordance with S6.7.2, there shall be no lens warpage greater than .118 inch (3 mm) when measured perpendicular to the aiming plane at the point of intersection of the axis of each replaceable light source with the exterior surface of the lens, and it shall meet the photometric requirements of SAE J579c, "Sealed Beam Headlamp Units for Motor Vehicles" December 1978.

(7) After a humidity test conducted in accordance with S6.8, the inside of the headlamp shall show no evidence of delamination or moisture, fogging or condensation visible without magnification, and the headlamp shall meet the photometric requirements of SAE J579c, "Sealed Beam Headlamp Units for Motor Vehicles" December 1978.

(8) After an impact test on a headlamp with a plastic lens conducted in accordance with S6.9, there shall not be any fracture of the adhesion of lens coating or delamination of materials visible without magnification, and the lens shall not be broken, cracked, or chipped.

(e)(1) There shall be no mechanism that allows adjustment of an individual standardized replaceable light

source or adjustment of reflector aim on a headlamp with two standardized replaceable light sources.

(2) Lower beam photometrics shall be provided by a filament designed with an average life of 320 hours.

(3) The lower and upper beams of a headlamp system consisting of two lamps, each containing two standardized replaceable light sources, shall be provided as follows:

(i) The lower beam shall be produced in one of the following ways:

(A) By the outboard light source (or the upper one if arranged vertically) designed to conform to the lower beam requirements of Table I of SAE Standard J579c *Sealed Beam Headlamp Units for Motor Vehicles*, Dec. 1978; or

(B) By both light sources, designed to conform to the lower beam requirements of Table I of SAE Standard J579c *Sealed Beam Headlamp Units for Motor Vehicles*, Dec. 1978.

(ii) The upper beam shall be provided in one of the following ways:

(A) By the inboard light source (or the lower one if arranged vertically) designed to conform to the upper beam requirements of Table I of SAE Standard J579c *Sealed Beam Headlamp Units for Motor Vehicles*, Dec. 1978; or

(B) By both light sources, designed to conform to the upper beam requirements of Table I of SAE Standard J579c *Sealed Beam Headlamp Units for Motor Vehicles*, Dec. 1978.

(iii) Each such headlamp manufactured as replacement motor vehicle equipment shall be designed to meet the requirements of paragraphs (e)(3)(i) and (e)(3)(ii) of this section.

(4) The lower and upper beams of a headlamp system consisting of four lamps, each containing a single standardized replaceable light source, shall be provided as follows:

(i) The lower beam shall be produced by the outboard lamp (or upper one if arranged vertically), designed to conform to the lower beam requirements of Table I of SAE Standard J579c *Sealed Beam Headlamp Units for Motor Vehicles*, Dec. 1978. The lens of each such headlamp shall be permanently marked with the letter "L".

(ii) The upper beam shall be produced by the inboard lamp (or lower

one if arranged vertically), designed to conform to the upper beam requirements of Table I of SAE Standard J579c *Sealed Beam Headlamp Units for Motor Vehicles*, Dec. 1978. The lens of each such headlamp shall be permanently marked with the letter "U".

(iii) Each such headlamp manufactured as replacement motor vehicle equipment shall be designed to meet the requirements of paragraphs (e)(4)(i) and (e)(4)(ii) of this section.

S4.1.1.37 Each lens-reflector unit manufactured as replacement equipment for a replaceable bulb headlamp system shall be designed to conform to the requirements of S4.1.1.36 when any standardized replaceable light source is inserted in it.

S4.1.1.38 Each standardized replaceable light source shall conform to the following requirements:

(a) A silicone O-ring shall be provided.

(b) The bulb portion of the standardized replaceable light source shall meet the requirements in paragraphs (b)(1) through (b)(6) of this section.

(1) The general specifications of the bulb shall be:

	Low beam	High beam
Maximum power, watts at 12.8 V (design voltage).	50.....	70.....
Lumens (without black cap) at 12.8 V design voltage.	1,067 ± 10%	1,738 ± 10%
Average life at 14.0 V rated voltage (life testing is conducted in a finished headlamp assembly placed in the normal operating attitude).	320 hrs.....	150 hrs.....

(2) The bulb filaments shall be subject to seasoning prior to wattage and lumens measurement.

(3) Wattage and lumens measurements shall be made with the direct current test voltage regulated within one quarter of one percent.

(4) Except for reference dimensions, and unless otherwise specified, a general tolerance of ±0.004 in. (0.10 mm) shall apply to all linear dimensions and ±1°.00' shall apply to all angular dimensions.

(5) Bulb, lead wires and/or terminals shall be installed in the base so as to provide an airtight seal.

(6) After a bulb deflection test conducted in accordance with S7., the permanent deflection of the glass envelope of each standardized replaceable light source shall not exceed .005 inch (.13 mm) in the direction of the applied force in the base.

S4.1.1.39 [Reserved]

S4.1.1.40 The lens of each replaceable bulb headlamp that conforms with this standard, and the side of the base of each standardized replaceable light source shall be marked with the symbol

"DOT" or "D
O
T"

which shall constitute a certification that the headlamp or light source conforms to all applicable Federal motor vehicle safety standards.

S4.1.1.41 Each passenger car manufactured on or after September 1, 1985, shall be equipped with a high-mounted stoplamp which:

(a) Shall have an effective projected luminous area not less than 4½ square inches.

(b) Shall have a signal visible to the rear through a horizontal angle from 45 degrees to the left to 45 degrees to the right of the longitudinal axis of the vehicle.

(c) Shall have the minimum photometric values in the amount and location listed in Figure 10, instead of those in Table 1 of SAE Recommended Practice J186a, *Supplemental High Mounted Stop and Rear Turn Signal Lamps*, September 1977.

(d) Need not meet the requirements of paragraphs 3.1.6 Moisture Test, 3.1.7 Dust Test, and 3.1.8 Corrosion Test of SAE Recommended Practice J186a if it is mounted inside the vehicle.

(e) Shall provide access for convenient replacement of the bulb without the use of special tools.

S4.1.1.42 A passenger car manufactured between August 1, 1984, and September 1, 1985, may be equipped with a high-mounted stop lamp that conforms to S4.3.1.8.

S4.1.1.43 Instead of being equipped with a headlighting system specified in Table I or Table III, a passenger car, multipurpose passenger vehicle, truck or bus manufactured on or after July 1, 1985, may be equipped with a headlighting system of two Type UF and two Type LF headlamps designed to conform to:

(a) The dimensions specified in Figures 11, 12, 13, and 14.

(b) The photometric requirements of Figure 15.

(c) The requirements of SAE Standard J579c *Sealed Beam Headlamp Units for Motor Vehicles*, December 1978, with the following exceptions:

(1) The definitions in Sections 2.4 through 2.11 do not apply.

(2) In Section 2.12, the definition of "Mechanically Adjustable Sealed Beam Unit" is: "A unit having three pads, defining a mechanical aiming plane, used to adjust and inspect the aim of the unit when installed on the vehicle."

(3) In Section 2.13, the definition of "Aiming Plane" is: "A plane defined by the three aiming pads."

(4) Section 3.4 does not apply.

(5) Tables 1 and 2, and Figures 1 and 2 do not apply.

(6) In Sections 3.5.1 and 3.5.3, references to "Tables 1 and 2" and Figure 3 are replaced by "Figure 15."

(7) Section 3.6 does not apply.

(d) When tested in accordance with section 3.5.2 of SAE Standard J579c *Sealed Beam Headlamp Units for Motor Vehicles*, December 1978, the mounted assembly (either Type UF or Type LF headlamps, respective mounting ring, aiming ring, and aim adjustment mechanism) shall be designed to conform to meet the requirements of Figure 15 for upper or lower beams respectively without reaim when any conforming Type UF or LF headlamp is tested and replaced by another conforming headlamp of similar type.

(e) The requirements of SAE Standard J580 August 1979 *Sealed Beam Headlamp Assembly*, with the following exceptions:

(1) Section 2.2 Mounting Ring reads: "the adjustable ring upon which the sealed beam unit is mounted and which forces the sealed beam unit to seat against the aiming ring when ac-

sembled into a sealed beam headlamp assembly."

(2) The definition "2.3 Aiming Ring" reads: "The clamping ring that retains the sealed beam unit against the mounting ring, and that provides an interface between the unit's aiming/seating pads and the headlamp aimer adapter (locating plate)."

(3) In Section 3, the correct version of SAE J575 is "SAE 575f (April 1975)."

(4) Section 4 does not apply.

(5) Section 5.1 reads: "Headlamps shall be designed so that they may be inspected and aimed by mechanical aimers as specified in SAE J602 October 1980, without the removal of any ornamental trim rings or other parts."

(6) Section 6.1.1 reads: "When the headlamp assembly is tested in the laboratory, a minimum aiming adjustment of ± 2.5 deg. shall be provided in the horizontal plane and ± 4 deg. in the vertical plane."

(7) Section 6.1.2 reads: "... through an angle of ± 2.5 deg. and ± 4 deg., respectively."

(8) Section 6.3 is retitled "Retaining Ring/Aiming Ring Tests."

(9) In Section 6.3.2 add the flange thickness

"92 x 150 mm.....0.340 in (8.6 mm)"

(10) Figures 2, 3, and 4 do not apply, and the reference to them in Section 6.5 is replaced by "Figure 16, Deflectometer, or Federal Motor Vehicle Safety Standard No. 108."

S4.1.1.44 The lens of each headlamp designed to conform to paragraph S4.1.1.43 shall be marked with:

(1) The designation "UP" if it provides an upper beam, or "LF" if it provides a lower beam; and

(b) The symbol "DOT" (either horizontally or vertically) which shall constitute certification that the headlamp conforms to all applicable Federal motor vehicle safety standards.

S4.1.1.45 Each headlamp designed to conform to paragraph S4.1.1.43 shall also be designed to conform to the following specifications:

	Type LF	Type UF
Watts @ 12.8 V (design voltage).....	1 80	1 70
Average Life @ 14.0 V (rated voltage)....	2 320	2 150

1 Maximum.
2 Hours.

S4.1.2 Plastic materials used for optical parts such as lenses and reflectors shall conform to SAE Recommended Practice J576c, May 1970, except that:

(a) Plastic materials manufactured before January 1, 1976, may conform to SAE J576b, August 1966;

(b) Plastic lenses used for inner lenses or those covered by another material and not exposed directly to sunlight shall meet the requirements of paragraphs 3.4 and 4.2 of SAE J576b, or J576c, as applicable, when covered by the outer lens or other material;

(c) After the outdoor exposure test, the haze and loss of surface luster of plastic materials used for lamp lenses shall not be greater than 30 percent haze as measured by ASTM-1003-61, "Haze and Luminous Transmittance of Transparent Plastic;" and

(d) After the outdoor exposure test, plastic materials used for reflex reflectors shall meet the appearance requirements of paragraph 4.2.2 of SAE J576b or J576c as applicable.

S4.1.3 No additional lamp, reflective device, or other motor vehicle equipment shall be installed that impairs the effectiveness of lighting equipment required by this standard.

S4.1.4 Each school bus shall be equipped with a system of either:

(a) Four red signal lamps designed to conform to SAE Standard J887, "School Bus Red Signal Lamps," July 1964, and installed in accordance with that standard; or

(b) Four red signal lamps designed to conform to SAE Standard J887, "School Bus Red Signal Lamps," July 1964, and four amber signal lamps designed to conform to that standard, except for their color, and except that their candlepower shall be at least $2\frac{1}{4}$ times that specified for red signal lamps. Both red and amber lamps shall be installed in accordance with SAE Standard J887, except that:

(i) Each amber signal lamp shall be located near each red signal lamp, at the same level, but closer to the vertical centerline of the bus; and

(ii) The system shall be wired so that the amber signal lamps are activated only by manual or foot operation, and if activated, are automatically deactivated and the red signal

lamps automatically activated when the bus entrance door is opened.

S4.1.5 The color in all lighting equipment covered by this standard shall comply with SAE Standard J578c, February 1977, "Color Specification for Electric Signal Lighting Devices" except that the color in lighting equipment manufactured on or before December 31, 1978, may comply with SAE Standard J578a, April 1965.

S4.2 Other requirements.

S4.2.1 The words "it is recommended that," "recommendations," or "should be" appearing in any SAE Standard or Recommended Practice referenced or subreferenced in this standard shall be read as setting forth mandatory requirements, except that the aiming pads on the lens face and the black area surrounding the signal lamp, recommended in SAE Standard J887, "School Bus Red Signal Lamps," July 1964, are not required.

S4.2.2 The words "Type 1 (5%)," "Type 2 (5%)," "Type 2 (7%)," "Type 1A," "Type 2A," and "Type 2B" appearing in any SAE Standard or Recommended Practice referenced or subreferenced in this standard shall also be read as setting forth requirements respectively for the following types of headlamps: 1C1, 2C1, 2D1, 1A1, 2A1, and 2B1.

S4.3 Location of required equipment.

S4.3.1 Except as provided in succeeding paragraphs of S4.3.1, each lamp, reflective device, and item of associated equipment shall be securely mounted on a rigid part of the vehicle other than glazing that is not designed to be removed except for repair, in accordance with the requirements of Table I or III and in locations specified in Table II (multipurpose passenger vehicles, trucks, trailers, and buses 80 or more inches in overall width) or Table IV (all passenger cars, and motorcycles, and multipurpose passenger vehicles, trucks, trailers, and buses less than 80 inches in overall width), as applicable.

S4.3.1.1 Except as provided in S4.3.1.1.1, each lamp and reflective device shall be located so that it meets the visibility requirements specified in any applicable SAE Standard or Recommended Practice. In addition, no part of the vehicle shall prevent a

parking lamp, taillamp, stop lamp, turn signal lamp, or backup lamp from meeting its photometric output at any applicable group of test points specified in Figures 1c and 3, or prevent any other lamp from meeting the photometric output at any test point specified in any applicable SAE Standard or Recommended Practice. However, if motor vehicle equipment (e.g., mirrors, snow plows, wrecker booms, backhoes, and winches) prevents compliance with this paragraph by any required lamp or reflective device, an auxiliary lamp or device meeting the requirements of this paragraph shall be provided.

S4.3.1.1.1 Clearance lamps may be mounted at a location other than on the front and rear if necessary to indicate the overall width of a vehicle, or for protection from damage during normal operation of the vehicle, and at such a location they need not be visible at 45 degrees inboard.

S4.3.1.2 On a truck tractor, the red rear reflex reflectors may be mounted on the back of the cab, at a minimum height not less than 4 inches above the height of the rear tires.

S4.3.1.3 On a trailer, the amber front side reflex reflectors and amber front side marker lamps may be located as far forward as practicable exclusive of the trailer tongue.

S4.3.1.4 When the rear identification lamps are mounted at the extreme height of a vehicle, rear clearance lamps need not meet the requirement of Table II that they be located as close as practicable to the top of the vehicle.

S4.3.1.5 The center of the lens referred to in SAE Standard J593c, "Backup Lamps," February 1968, is the optical center.

S4.3.1.6 On a truck tractor, clearance lamps mounted on the cab may be located to indicate the width of the cab, rather than the overall width of the vehicle.

S4.3.1.7 The requirement that there be not less than 4 inches between a front turn signal lamp and a low beam headlamp, specified in SAE Standard J588e, "Turn Signal Lamps," September 1970, shall not apply if the sum of the candlepower values of the turn signal lamp measured at the test

points within each group listed in Figure 1c is not less than two and one-half times the sum specified for each group for yellow turn signal lamps.

S4.3.1.8 Each high-mounted stoplamp on a passenger car manufactured on or after September 1, 1985, shall be mounted with its center on the vertical centerline of the passenger car as the car is viewed from the rear. The lamp may be mounted at any position on the centerline, including the glazing. If the lamp is mounted inside the vehicle, means shall be provided to minimize reflections from the light of the lamp upon the rear window glazing that might be visible to the driver when viewed directly, or indirectly in the rearview mirror. If the lamp is mounted below the rear window, no portion of the lens shall be lower than 6 inches below the rear window on convertibles, or 3 inches on other passenger cars.

S4.4 Equipment combinations.

S4.4.1 Two or more lamps, reflective devices, or items of associated equipment may be combined if the requirements for each lamp, reflective device, and item of associated equipment are met, except that no clearance lamp may be combined optically with any taillamp or identification lamp, and no high-mounted stoplamp shall be combined with any other lamp or reflective device.

S4.5 Special wiring requirements.

S4.5.1 Each vehicle shall have a means of switching between lower and upper headlamp beams that conforms to SAE Recommended Practice J564a "Headlamp Beam Switching," April 1964 or to SAE Recommended Practice J565b, "Semi-Automatic Headlamp Beam Switching Devices," February 1969.

S4.5.2 Each vehicle shall have a means for indicating to the driver when the upper beams of the headlamps are on that conforms to SAE Recommended Practice J564a, April 1964, except that the signal color need not be red.

S4.5.3 The taillamps on each vehicle shall be activated when the headlamps are activated in a steady-burning state.

S4.5.4 The stoplamps on each vehicle shall be activated upon application

of the service brakes. The high-mounted stoplamp on each passenger car shall be activated only upon application of the service brakes.

S4.5.5 The vehicular hazard warning signal operating unit on each vehicle shall operate independently of the ignition or equivalent switch, and when activated, shall cause to flash simultaneously sufficient turn signal lamps to meet, as a minimum, the turn signal lamp photometric requirements of this standard.

S4.5.6 Each vehicle equipped with a turn signal operating unit shall also have an illuminated pilot indicator. Failure of one or more turn signal lamps to operate shall be indicated in accordance with SAE Standard J588e, "Turn Signal Lamps," September 1970, except where a variable-load turn signal flasher is used on a truck, bus, or multipurpose passenger vehicle 80 or more inches in overall width, on a truck that is capable of accommodating a slide-in camper, or on any vehicle equipped to tow trailers.

S4.5.7 On all passenger cars, and motorcycles, and multipurpose passenger vehicles, trucks, and buses of less than 80 inches overall width:

(a) When the parking lamps are activated, the taillamps, license plate lamps, and side marker lamps shall also be activated; and

(b) When the headlamps are activated in a steady-burning state, the taillamps, parking lamps, license plate lamps and side marker lamps shall also be activated.

S4.5.8 The lower and upper beams of a headlamp system consisting of four lamps, each containing a single standardized replaceable light source, shall not be activated simultaneously, except momentarily for temporary signaling use.

S4.5.9 The wiring harness or connector assembly of a replaceable bulb headlamp with two standardized bulbs or a four-lamp replaceable bulb headlamp system shall be designed so that the filaments not intended to be used with the lens prescription in front of such filament shall not be illuminated.

S4.5.10 The filaments in a dual filament standardized replaceable light source shall not be activated simultaneously except momentarily when

switching between beams, or for temporary signaling use.

S4.5.11 The wiring requirements for lighting equipment in use are:

(a) Turn signal lamps, hazard warning signal lamps, and school bus warning lamps shall be wired to flash;

(b) High-mounted stop lamps on passenger cars manufactured on or after August 1, 1984, but before September 1, 1986, may flash when the hazard warning system is activated;

(c) Headlamps and side marker lamps may be wired to flash for signaling purposes;

(d) A motorcycle headlamp may be wired to allow either its upper beam or its lower beam, but not both, to modulate from a higher intensity to a lower intensity in accordance with section S4.6;

(e) All other lamps shall be wired to be steady-burning.

S4.6 Motorcycle headlamp modulation system.

S4.6.1 A headlamp on a motorcycle may be wired to modulate either the upper beam or the lower beam from its maximum intensity to a lesser intensity provided that:

(a) The rate of modulation shall be 240 ± 40 cycles per minute.

(b) The headlamp shall be operated at maximum power for 50 to 70 percent of each cycle.

(c) The lowest intensity at any test point shall be not less than 17 percent of the maximum intensity measured at the same point.

(d) The modulator switch shall be wired in the power lead of the beam filament being modulated and not in the ground side of the circuit.

(e) Means shall be provided so that both the lower beam and upper beam remain operable in the event of a modulator failure.

(f) The system shall include a sensor mounted with the axis of its sensing element perpendicular to a horizontal plane. Headlamp modulation shall cease whenever the level of light emitted by a tungsten filament light operating at 3000° Kelvin is either less than 270 lux (25 foot-candles) of direct light for upward pointing sensors or less than 60 lux (5.6 foot-candles) of reflected light for downward pointing sensors. The light is measured by a sil-

icon cell type light meter that is located at the sensor and pointing in the same direction as the sensor. A Kodak Gray Card (Kodak R-27) is placed at ground level to simulate the road surface in testing downward pointing sensors.

(g) When tested in accordance with the test profile shown in Figure 9, the voltage drop across the modulator when the lamp is on at all test conditions for 12 volt systems and 6 volt systems shall not be greater than .45 volt. The modulator shall meet all the provisions of the standard after completion of the test profile shown in Figure 9.

(h) Means shall be provided so that both the lower and upper beam function at design voltage when the headlamp control switch is in either the lower or upper beam position when the modulator is off.

S4.6.2(a) Each motorcycle headlamp modulator not intended as original equipment, or its container, shall be labelled with the maximum wattage, and the minimum wattage, appropriate for its use. Additionally, each such modulator shall comply with S4.6.1 (a) through (g) when connected to a headlamp of the maximum rated power and a headlamp of the minimum rated power and shall provide means so that the modulated beam functions at design voltage when the modulator is off.

(b) Instructions, with a diagram, shall be provided for mounting the light sensor including location on the motorcycle, distance above the road surface, and orientation with respect to the light.

S4.7 Replacement Equipment.

S4.7.1 Each lamp, reflective device, or item of associated equipment manufactured to replace any lamp, reflective device, or item of associated equipment on any vehicle to which this standard applies, shall be designed to conform with this standard.

S4.7.2 Each lamp, reflective device, or item of associated equipment to which section S4.7.1 applies may be labeled with the symbol DOT, which shall constitute a certification that it conforms to applicable Federal motor vehicle safety standards.

S5. Subreferenced SAE Standards and Recommended Practices.

S5.1 SAE Standards and Recommended Practices subreferenced by the SAE Standards and Recommended Practices included in Tables I and III and paragraphs S4.1.4 and S4.5.1 are those published in the 1970 edition of the SAE Handbook, except that the SAE standard referred to as "J575" is J575e, *Tests for Motor Vehicle Lighting Devices and Components*, August 1970, for stoplamps, tail lamps, and turn signal lamps designed to conform to SAE Standards J586c, J585d/J595e, and J588e, respectively, and for high-mounted stoplamps designed to conform to SAE Recommended Practice J186a. The reference in J585e to J256 does not apply. The subreferenced Standards and Recommended Practices for headlamps designed to conform to SAE Standard J579c, *Sealed Beam Headlamp Units*, December 1974, are those published in the 1977 edition of the SAE Handbook.

S5.2 Requirements of SAE Standards incorporated by reference in this standard, other than J576b and J576c, do not include tests for warpage of devices with plastic lenses.

S6. *Tests and procedures for replaceable bulb headlamps.* When tested according to the procedures below, each replaceable bulb headlamp shall meet the requirements of S4.1.1.36 (b) and (d).

S6.1 *Photometry.* A headlamp shall be tested according to paragraph S3.5, Photometric Design Requirements of SAE Standard J579c "Sealed Beam Headlamp Units for Motor Vehicles" December 1978, after the tests specified in S6.2, S6.4, S6.6, S6.7(a), S6.7(b) and S6.8.

S6.2 *Abrasion.* (a) A headlamp shall be mounted in the abrasion test fixture in the manner indicated in Figure 5 with the lens facing upward.

(b) An abrading pad meeting the requirements in paragraphs (c)(1) through (c)(4) of this section shall be cycled back and forth (1 cycle) for 11 cycles at 4 ± 0.8 in. ($10 \text{ cm} \pm 2 \text{ cm}$) per second over at least 80 percent of the lens surface, including all the area between the upper and lower aiming pads, but not including lens covers and edges.

(c)(1) The abrading pad shall be not less than $1.0 \pm .04$ in. ($2.5 \text{ cm} \pm .1 \text{ cm}$) wide, constructed of 0000 steel wool, and rubber cemented to a rigid base shaped to the same vertical contour of the lens. The "grain" of the pad shall be perpendicular to the direction of motion.

(2) The abrading pad support shall be equal in size to the pad and the center of the support surface shall be within $\pm .08$ in. ($\pm 2 \text{ mm}$) of parallel to the lens surface.

(3) The density of the abrading pad shall be such that when the pad is mounted to its support and is resting unweighted on the lens, the base of the pad shall be no closer than .125 in. (3.2 mm) to the lens at its closest point.

(4) When mounted on its support and resting on the lens of the test headlamp, the abrading pad shall then be weighted such that a pad pressure of $2.0 \pm .15$ psi ($14 \pm 1 \text{ KPa}$) exists at the center and perpendicular to the face of the lens.

(d) A pivot shall be used if it is required to follow the contour of the lens.

(e) Unused steel wool shall be used for each test.

S6.3 *Vibration.* A vibration test shall be conducted according to the procedures in SAE Standard J575e, "Tests for Motor Vehicle Lighting Devices and Components" August 1970, and those set forth in paragraphs (a) through (c) of this section.

(a) The table on the adapter plate is of sufficient size to contain completely the test fixture base with no overhang.

(b) The direction of vibration is the vertical axis of the headlamp as mounted on the vehicle.

(c) The filament is cold (not energized).

S6.4 *Chemical resistance.* (a) The entire exterior lens surface of the fixtured headlamp and top surface of the lens-reflector joint shall be wiped once to the left and once to the right with a 6-inch square soft cotton cloth (with pressure equally applied) which has been saturated once in a container with 2 ounces of one of the test fluids listed in paragraph (b) of this section. The lamp shall be wiped within 5 sec-

onds after removal of the cloth from the test fluid.

(b) The test fluids are:

(1) Gasoline—unleaded 89 octane

(R + M)

2

or above used per OSHA Std. 29 CFR 1910.106—Handling Storage and Use of Flammable Combustible Liquids.

(2) Tar remover (petroleum base with Xylene).

(3) Power steering fluid.

(4) Windshield washer fluid consisting of 0.5% monoethanolamine with the remainder 50% concentrations of methanol/distilled water by volume.

(5) Antifreeze (50% concentration of ethylene glycol/distilled water by volume).

(c) After the headlamp has been wiped with the test fluid, it shall be stored in designed operating attitude for 48 hours at a temperature of $73^{\circ}\text{F} \pm 7^{\circ}$ ($23^{\circ}\text{C} \pm 4^{\circ}$) and a relative humidity of 30 $\pm$ 10 percent. At the end of the 48 hour period, the headlamp shall be wiped clean with a soft dry cotton cloth and visually inspected.

S6.5 Corrosion. (a) A connector test shall be performed on each filament circuit prior to the test in subparagraph (b) according to Figure 1 of SAE Standard J580, August 1979. The power source shall be set to provide 12.8 volts and the resistance shall be set to produce 10 amperes.

(b) The headlamp with connector attached to the terminals, unfixtured and in its designed operating attitude with all drain holes, breathing devices or other designed openings in their normal operating positions, shall be subjected to a salt spray (fog) test in accordance with ASTM B117-73, "Method of Salt Spray (FOG) Testing," for a period of 240 hours, consisting of ten successive 24-hour intervals. During each interval, the headlamp shall be mounted in the middle of the chamber and exposed for 23 hours to the salt spray. The spray shall not be activated for the 24th hour. The bulb shall be removed from the headlamp and from the test chamber during the

one hour of salt spray deactivation and reinserted for the start of the next test cycle, at the end of the first and last three 23-hour periods of salt spray exposure, and at the end of any two of the fourth through seventh 23 hour periods of salt-spray exposure. The test chamber shall be closed at all times except for a maximum of two minutes which is allowed for removal or replacement of a bulb during each cycle. After the ten cycles, the lens reflector unit without the bulb shall be immersed in deionized water for five minutes, then secured and allowed to dry by natural convection only.

(c) Using the voltage, resistance and pretest setup of paragraph (a), the current in each filament circuit shall be measured after the test conducted in paragraph (b).

S6.6 Dust. The headlamp, mounted on a test fixture, with all drain holes, breathing devices or other designed openings in their normal operating positions, shall be positioned within a cubical box, with inside measurements of 35.4 in. (900 mm) on each side or larger if required for adequate wall clearance, i.e., a distance of at least 5.9 in. (150 mm) between the headlamp and any wall of the box. The box shall contain 9.9 lb. (4.5 kg) of fine powdered cement which conforms to the ASTM C150-77 specification for Portland Cement. Every 15 minutes, the cement shall be agitated by compressed air or fan blower(s) by projecting blasts of air for a two-second period in a downward direction so that the cement is diffused as uniformly as possible throughout the entire box. This test shall be continued for five hours after which the exterior surfaces of the headlamp shall be wiped clean.

S6.7 Temperature and internal heat tests—A headlamp with one replaceable standardized light source shall be tested according to S6.7.1(a) and S6.7.2(a). A headlamp with two standardized replaceable light sources shall be tested according to S6.7.1(b), S6.7.1(c), S6.7.2(b) and S6.7.2(c).

S6.7.1 Temperature cycle.

(a) *Test for a headlamp with one standardized replaceable light source.* A headlamp, mounted on a headlamp test fixture, shall be exposed to 10

complete consecutive thermal cycles having the thermal cycle profile shown in Figure 6. During the hot cycle, the highest combination of filament wattages such as upper beam, fog lamp, parking lamp, and turn signal lamp, that are intended to be used simultaneously in the headlamp, shall be energized at design voltage commencing at point "A" of Figure 6 and deenergized at point "B". If a turn signal is provided, for test purposes it shall flash at 90 flashes per minute with a $75 \pm 2\%$ current "on time." Separate or single test chambers may be used to separate the temperature environment described by the thermal cycle profile. All drain holes, breathing devices or other designed openings of the headlamp shall be in their normal operating positions.

(b) *Test for the lower beam of a headlamp with two standardized replaceable light sources.* A headlamp mounted on a headlamp test fixture, shall be exposed to 10 complete consecutive thermal cycles having the thermal cycle profile shown in Figure 6. During the hot cycle, the highest combination of filament wattages such as fog lamp, parking lamp, and turn signal lamp, that are intended to be used simultaneously in the headlamp when operating on lower beam shall be energized at design voltage commencing at point "A" of Figure 6 and deenergized at point "B". If a turn signal is provided, for test purposes it shall flash at 90 flashes per minute with a $75 \pm 2\%$ current "on time." Separate or single test chambers may be used to separate the temperature environment described by the thermal cycle profile. All drain holes, breathing devices or other designed openings of the headlamp shall be in their normal operating position.

(c) *Test for the upper beam of a headlamp with two standardized replaceable light sources.* A headlamp mounted on a headlamp test fixture shall be exposed to 10 complete consecutive thermal cycles having the thermal cycle profile shown in Figure 6. During the hot cycle, the highest combination of filament wattages such as fog lamps, parking lamps, and turn signal lamps, that are intended to be used simultaneously when the head-

lamp is operating on upper beam shall at design voltage be energized simultaneously commencing at point "A" of Figure 6 and deenergized at point "B". If a turn signal is provided, for test purposes it shall flash at 90 flashes per minute with a $75 \pm 2\%$ current "on time." Separate or single test chambers may be used to generate the temperature environment described by the thermal cycle profile. All drain holes, breathing devices or other designed openings of the headlamp shall be in their normal operating positions.

S6.7.2 Internal Heat Test.

(a) *Test for a headlamp with one standardized replaceable light source.*

(1) The lens surface of the headlamp that would normally be exposed to road dirt shall be sprayed uniformly with any appropriate mixture of dust and water or other material to reduce the photometric output at the test point H-V of the upper beam (or at the $\frac{1}{2}$ "D-1 $\frac{1}{2}$ "R test point for low beam if the headlamp is an "L" headlamp in a four-lamp system) to $25 \pm 2\%$ of the output originally measured in the upper beam photometric test under S4.1.1.36(b). Such reduction shall be determined under the same conditions under which the original measurement was made.

(2) After the determination has been made that the photometric output of the lamp has been reduced as specified in S6.7.2(a)(1), the lamp and its mounting hardware shall be mounted in an environmental test chamber in the manner similar to that indicated in Figure 7 "Dirt-Ambient Test Setup." The headlamp shall be soaked for one hour at a temperature of $95 \pm 7 - 0^\circ\text{F}$ ($35 \pm 4 - 0^\circ\text{C}$) and then the highest combination of filament wattages that are intended to be used simultaneously when operating on upper beam (or lower beam for an "L" lamp headlamp) shall be energized for one hour in a still air condition, allowing the temperature to rise from 95°F (35°C).

(3) The lamp shall be returned to a room ambient temperature of $73 \pm 7 - 0^\circ\text{F}$ ($23 \pm 4 - 0^\circ\text{C}$) and relative humidity of $30 \pm 10\%$. The lens shall then be cleaned. Photometric output of the lamp shall be determined according to S6.1.

(b) *Test of the lower beam of a headlamp with two standardized replacement light sources.*

(1) The lens surface of the headlamp that would normally be exposed to road dirt shall be sprayed uniformly with any appropriate mixture of dust and water or other material to reduce the photometric output at the test point $\frac{1}{4}$ "D-1½" R or the lamp to $25 \pm 2\%$ of the output originally measured in the lower beam photometric test under S4.1.1.36(b). Such reduction shall be determined under the same conditions under which the original measurement was made.

(2) After the determination has been made that the photometric output of the lamp has been reduced as specified in S6.7.2(b)(1), the lamp and its mounting hardware shall be mounted in an environmental test chamber in the manner similar to that indicated in Figure 7 "Dirt-Ambient Test Setup." The headlamp shall be soaked for one hour at a temperature of $95 \pm 7 - 0$ °F ($35 \pm 4 - 0$ °C) and then the highest combination of filament wattages that are intended to be used simultaneously when operating on lower beam shall be energized simultaneously for one hour in a still air condition, allowing the temperature to rise from 95 °F (35 °C).

(3) The lamp shall be returned to a room ambient temperature $73 \pm 7 - 0$ °F (23 ± 0 °C) and relative humidity of $30 \pm 10\%$. The lens shall then be cleaned. The photometric output of the lamp on lower beam shall be determined according to S6.1.

(c) *Test of the upper beam of a headlamp with two standardized replacement light sources.*

(1) The lens surface of the headlamp that would normally be exposed to road dirt shall be sprayed uniformly with any appropriate mixture of dust and water or other material to reduce the photometric output at the test point H-V of the lamp to $25 \pm 2\%$ of the output originally measured in the upper beam photometric test under S4.1.1.36(b). Such reduction shall be determined under the same conditions under which the original measurement was made.

(2) After the determination has been made that the photometric output of

the lamp has been reduced as specified in S6.7.2(c)(1), the lamp and its mounting hardware shall be mounted in an environmental test chamber in the manner similar to that indicated in Figure 7 "Dirt-Ambient Test Setup." The headlamp shall be soaked for one hour at a temperature of $95 \pm 7 - 0$ °F ($33 \pm 4 - 0$ °C) and then the highest combination of filament wattages that are intended to be used simultaneously when operating on upper beam shall be energized simultaneously for one hour in a still air condition, allowing the temperature to rise from 95 °F (35 °C).

(3) The lamp shall be returned to a room ambient temperature of $73 \pm 7 - 0$ °F ($23 \pm 4 - 0$ °C) and relative humidity of $30 \pm 10\%$. The lens shall then be cleaned. The photometric output of the lamp on the upper beam shall be determined according to S6.1.

S6.8 Humidity. The headlamp mounted on a test fixture shall be placed in a controlled environment consisting of a temperature of $100 \pm 7 - 0$ °F ($38 \pm 4 - 0$ °C) with a relative humidity of not less than 90%. All drain holes, breathing devices, and other designed openings shall be in their normal operating positions. The headlamp shall be subjected to 20 consecutive 6-hours test cycles. In each cycle, it shall be energized for 1 hour at design voltage with the highest combination of filament wattages that are intended to be used and then deenergized for 5 hours. If the turn signal is provided, for test purposes it shall flash at 90 flashes per minute with a $75 \pm 2\%$ current "on time." After completion of the last cycle, the lamp shall be soaked for 1 hour at $73 \pm 7 - 0$ °F ($20 \pm 4 - 0$ °C) and relative humidity of $30 \pm 10\%$ before it is removed for photometric testing. The headlamp shall be tested for photometrics at 10 ± 1 minutes following completion of the humidity test.

S6.9 Impact. The headlamp shall be rigidly mounted in a headlamp test fixture on the seating lugs with the mechanical axis (bulb socket axis) vertical, and the lens upward. The seating plane of the test fixture shall consist of oakwood 0.5 inch (13 mm) thick. One impact shall be delivered to the center of the lens on the mechanical

axis using a steel ball bearing with a diameter of .9055 in. (23 mm) weighing 1.76 oz. (50 grams), dropped freely from a distance of 15.75 in. (40 cm) from the bottom of the ball to the surface of the lens, at the intersection of the ball trajectory and the mechanical axis of the headlamp.

S7. Deflection test for replaceable bulb. Each replaceable bulb shall meet the requirements of S4.1.1.38(b)(6) when tested in the following manner.

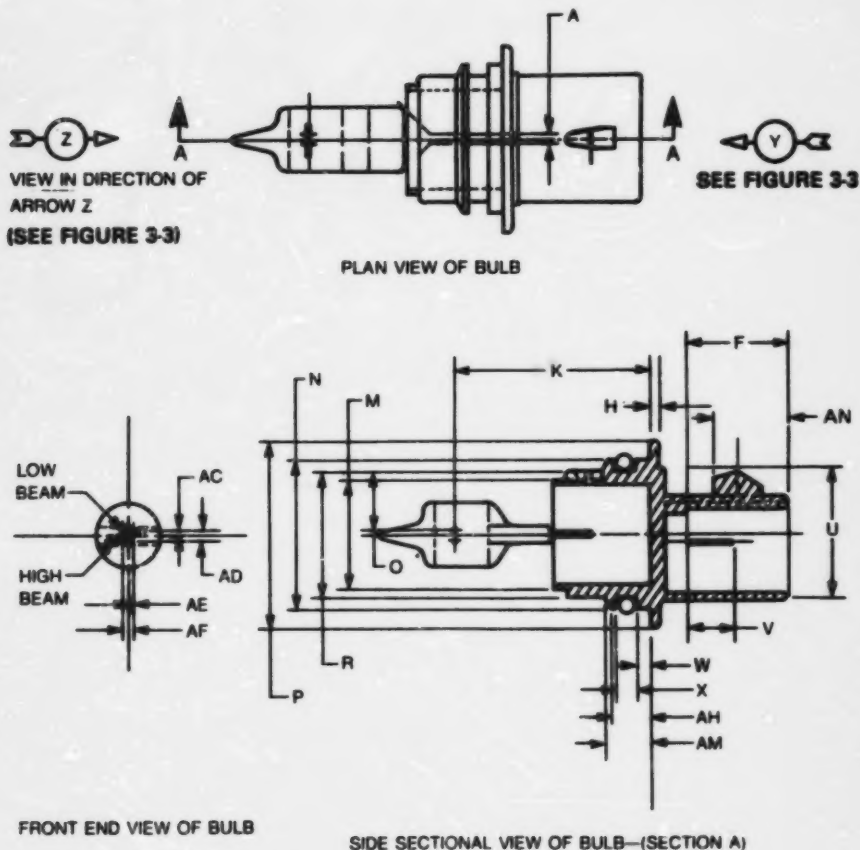
With the bulb rigidly mounted in a fixture in a manner indicated in Figure 8, apply a force of 4.0 ± 0.1 lb. (17.8 ± 4 N) perpendicular to the longitudinal axis of the glass envelope and perpendicular to, and in a line intersecting, the lateral axis of the low beam filament. The force shall be applied to the outside surface of the glass envelope using a rod with a hard rubber tip with a minimum spherical radius of .039 in. (1 mm).

Figure 3

**SPECIFICATIONS FOR THE STANDARDIZED
REPLACEABLE LIGHT SOURCE**

**INTERCHANGEABILITY DRAWING
HEADLAMP BULB ASSEMBLY**

Figure 3-1



Note: Unless otherwise specified, a general tolerance of ± 0.004 in. (0.10 mm) shall apply to all linear dimensions and $\pm 1\%$ shall apply to all angular dimensions specified in Fig. 3.

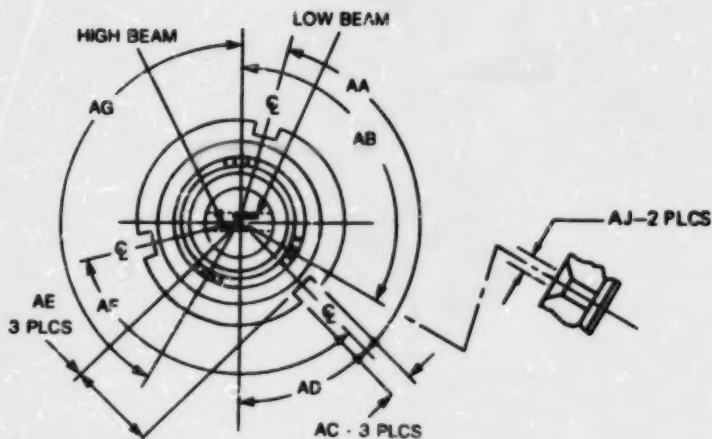
Figure 3-2

INTERCHANGEABILITY DRAWING
HEADLAMP BULB ASSEMBLYDimensional Specifications
Figure 3-1

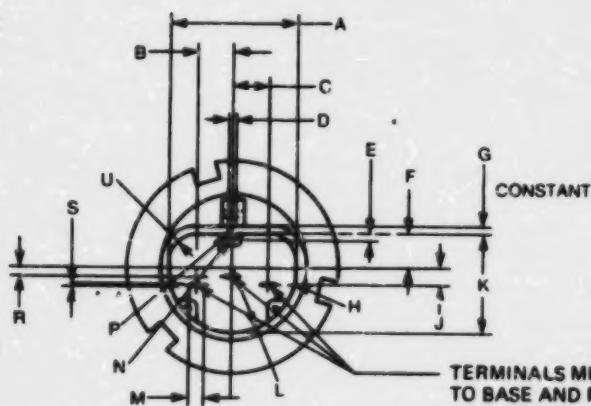
<u>Dimension</u>	<u>Inches</u>	<u>Millimeters</u>
A	.085 to .083 .002 Either Side CL	2.15 to 2.10 .05 Either Side CL
F	.906	23.00
H	.079	2.00
K Low Beam -	1.752 $\pm$.015	44.50 $\pm$.38
High Beam -	CL High Beam to be within $\pm$.035" of CL of low beam	
M	.974	24.75
N	(1.335 to 1.331) .002 Either Side CL	(33.90 to 33.80) .05 Either Side CL
O	.517 $\pm$ 0.020	13.13 $\pm$.50
P	1.673	42.50
R	(1.126 to 1.122) .002 Either Side CL	(28.60 to 28.50) .05 Either Side CL
U	1.181	30.00
V	.413	10.50
W	.128	3.25
X	.189	4.80
AC	.045 $\pm$.020	1.15 $\pm$.50
AD	.091 $\pm$.028	2.30 $\pm$.70
AE	.047 $\pm$.020	1.20 $\pm$.50
AF	.094 $\pm$.032	2.40 $\pm$.80
AH	.356	9.05
AM	.415	10.54
AN	.673	17.10

INTERCHANGEABILITY DRAWING
HEADLAMP BULB ASSEMBLY

Figure 3-3



VIEW Z - FROM BULB END



VIEW Y - FROM CONNECTOR END

TERMINALS MUST BE PERPENDICULAR
TO BASE AND PARALLEL WITHIN $\pm 1.5^\circ$
LEFT TERMINAL—GROUND
RIGHT TERMINAL—HIGH BEAM
CENTER TERMINAL—LOW BEAM

Figure 3-4

Interchangeability Drawing
Headlamp Bulb AssemblyDimensional Specifications
Figure 3-3

<u>Letter</u>	<u>Inches</u>	<u>Millimeters</u>
AA	120°	120°
AB	120°	120°
AC	.197	5.0
AD	44° 30'	44° 30'
AE	.722	18.35
AF	120°	120°
AG	150°	150°
AJ	.138	3.50
A	1.024	26.00
B	.289 $\pm$.010	7.35 $\pm$.25
C	.289 $\pm$.010	7.35 $\pm$.25
D	.055	1.40
E	.059	1.50
F	.278	7.05
G	.059	1.50
J	.142 $\pm$.010	3.60 $\pm$.25
K	.007	20.50
L	.531 R	13.50 R
M	.118	3.00
R	.075 $\pm$.010	1.90 $\pm$.25
S	.025 $\pm$.002	.63 $\pm$.25
U	.222 R	5.65 R

INTERCHANGEABILITY DRAWING
HEADLAMP BULB ASSEMBLY
HALOGEN CAPSULE

Figure 3-5

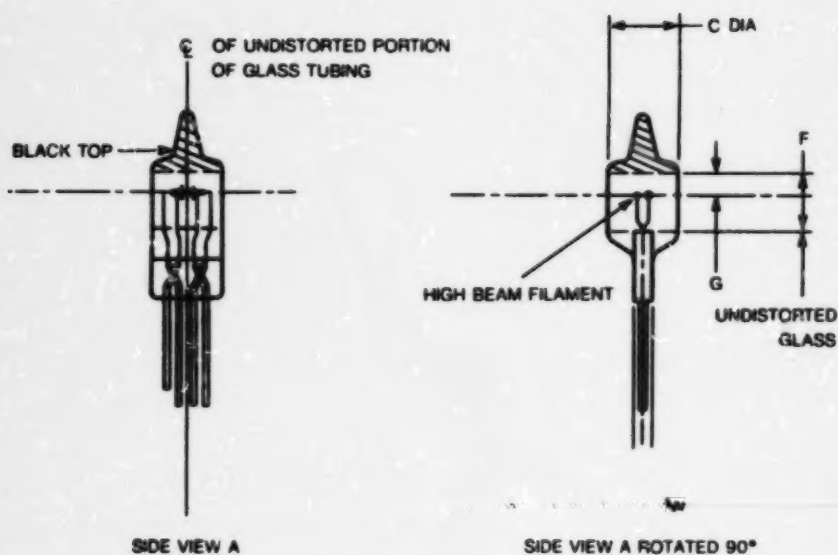


Figure 3-6

INTERCHANGEABILITY DRAWING
HEADLAMP BULB ASSEMBLY
HALOGEN CAPSULEDimensional Specifications
Figure 3-5

<u>Letter</u>	<u>Inches</u>	<u>Millimeters</u>
C	$.579 \pm .012$	$14.7 \pm .50$
F	.472 min. undistorted glass	12.0 min. undistorted glass
G	.197 min. (maximum dimension to cover glass distortion line)	5.0 min. (maximum dimension to cover glass distortion line)

INTERCHANGEABILITY DRAWING
HEADLAMP BULB ASSEMBLY
SOCKET (IN REFLECTOR)

Figure 3-7

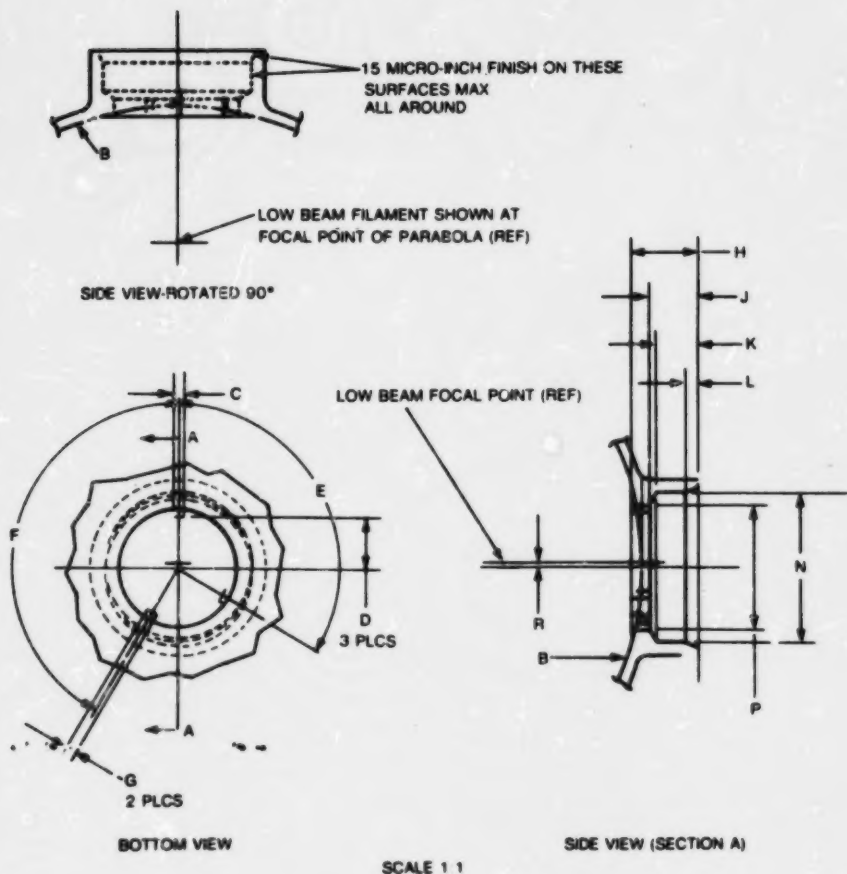


Figure 3-8

INTERCHANGEABILITY DRAWING
HEADLAMP BULB ASSEMBLY
SOCKET (IN REFLECTOR)

Dimensional Specifications
Figure 3-7

<u>Letter</u>	<u>Inches</u>	<u>Millimeters</u>
B	Ref Line Lamp Parabola	Ref Line Lamp Parabola
C	$.079 \pm .002$ $^{+.002}$ Either Side of CL	$2.00 \pm .05$ $^{+.05}$ Either Side of CL
D	.502	12.75
E	120°	120°
F	150°	150°
G	.079	2.00
H	.596	15.15
J	.433	11.00
K	.374	9.50
L	.108	2.75
N	(1.350 to 1.346) $^{+.002}$ Either Side of CL	(34.30 to 34.20) $^{+.05}$ Either Side of CL
P	(1.132 to 1.128) $^{+.002}$ Either Side of CL	(28.75 to 28.65) $^{+.05}$ Either Side of CL
R	.045	1.15

Figure 3-9

INTERCHANGEABILITY DRAWING
HEADLAMP BULB ASSEMBLY
'O' RING

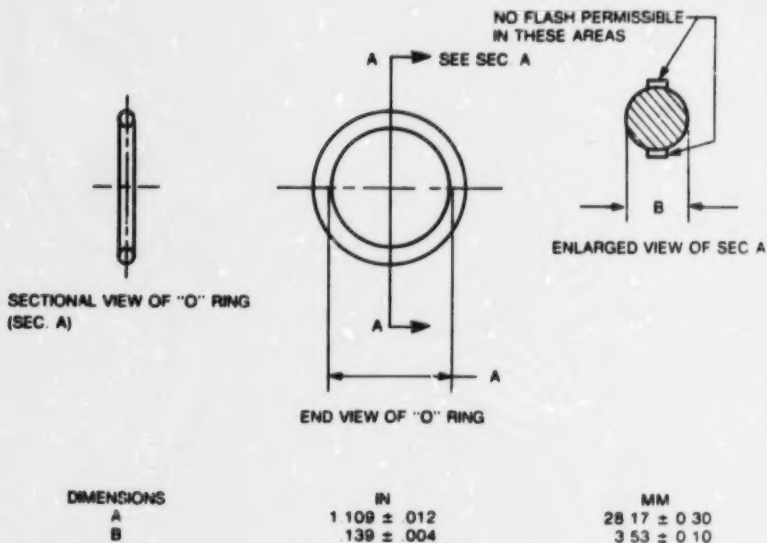
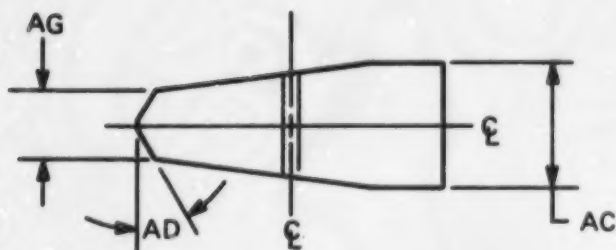
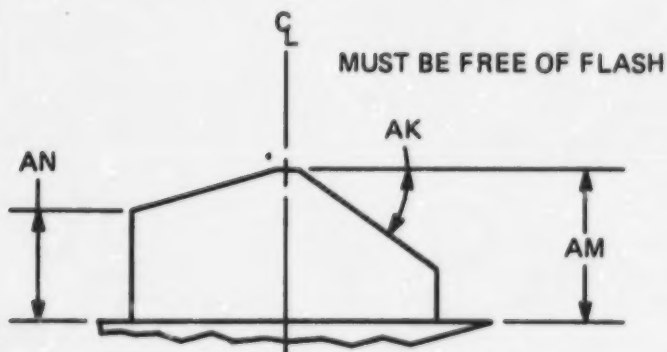


Figure 3-10
INTERCHANGEABILITY DRAWING
HEADLAMP BULB ASSEMBLY



EXPLODED VIEW W FOUR TIMES SIZE



EXPLODED VIEW OF LOCKING FEATURE

Figure 3-11

INTERCHANGEABILITY DRAWING
HEADLAMP BULB ASSEMBLYDimensional Specifications
Figure 3-10

<u>Letter</u>	<u>Inches</u>	<u>Millimeters</u>
AC	.179	4.55
AD	30°	30°
AG	.098	2.50
AK	35°	35°
AM	.217	5.50
AN	.157	4.00

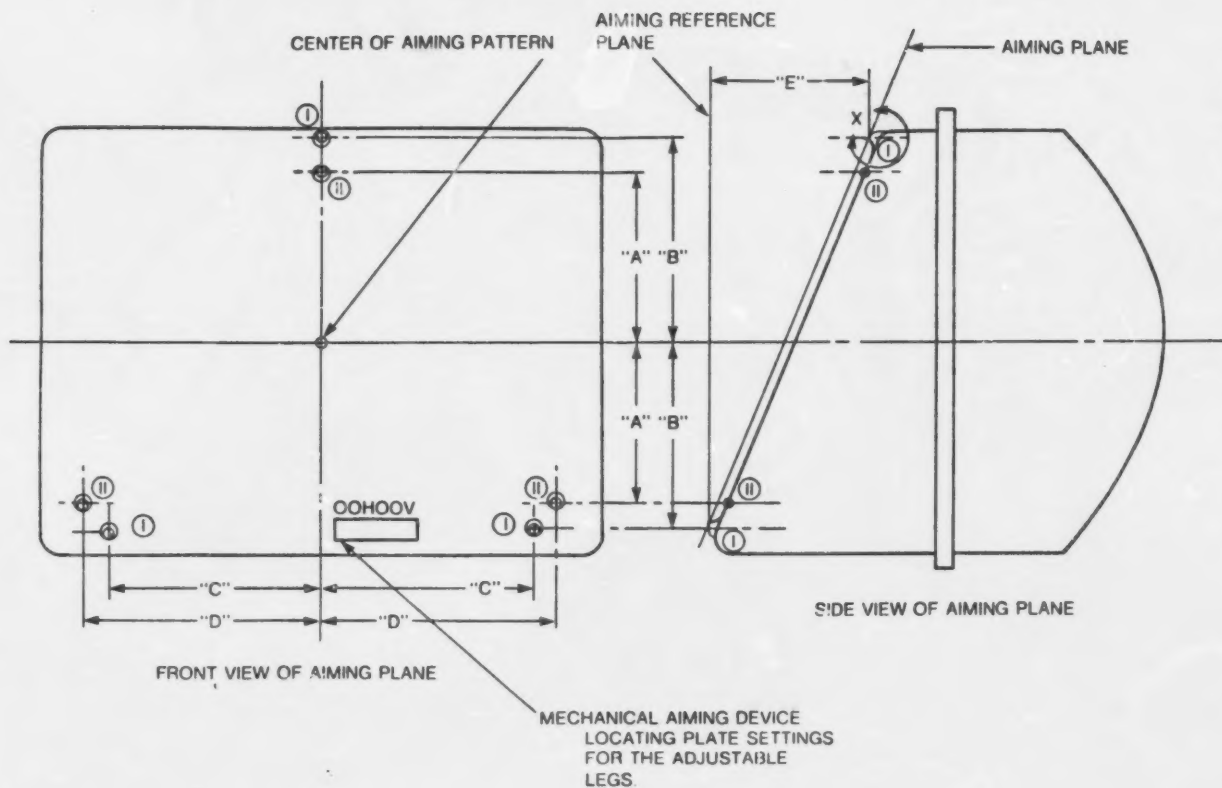


Figure 4-1. Dimensional Specifications for Location of Aiming Pads on Replaceable Bulb Headlamp Units

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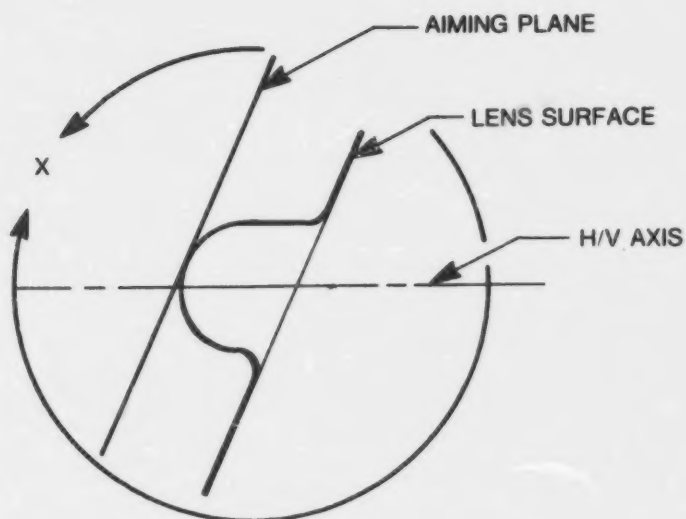
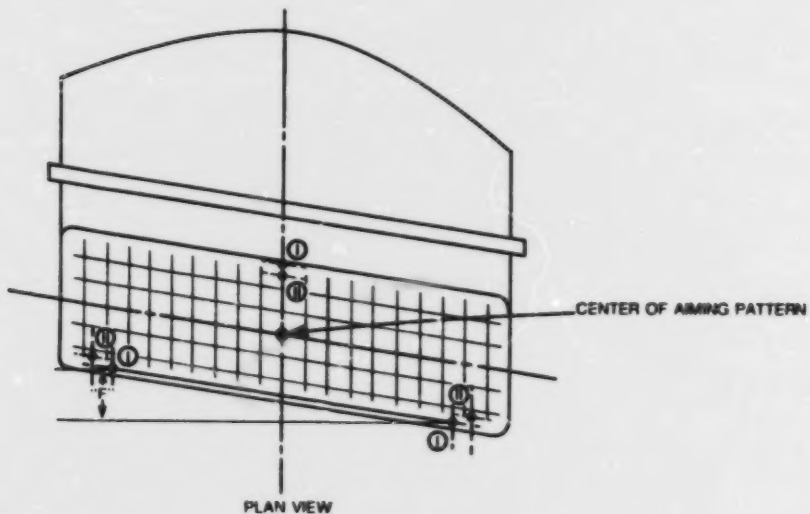


Figure 4-2. Detail Example of Aiming Pad

Figure 4-3

**DIMENSIONAL SPECIFICATIONS
FOR LOCATION OF AIMING PADS
ON REPLACEABLE BULB UNITS**



NOTES

- Group I or Group II aiming pad locations may be used
- Group I aiming pad location (front view) is that prescribed for 2R1 sealed beam units
- Group II aiming pad location (front view) is that prescribed for 1A1 2A1 sealed beam units

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Figure 4-4

**DIMENSIONAL SPECIFICATIONS
FOR LOCATION OF AIMING PADS****ON REPLACEMENT BULB UNITS**

<u>Dimension</u>	<u>Millimetres</u>	<u>Inches</u>
A	42.16 ± 0.25	1.660 ± 0.010
B	60.05 ± 1.00	2.364 ± 0.039
C	64.0 ± 1.00	2.520 ± 0.039
D	68.58 ± 0.51	2.700 ± 0.020
E	Mechanical aiming device locating plate setting for the vertical adjustable leg. (Millimeters)	
F	Mechanical aiming device locating plate setting for the horizontal adjustable leg. (Millimeters)	

ABRASION TEST FIXTURE

Figure 5

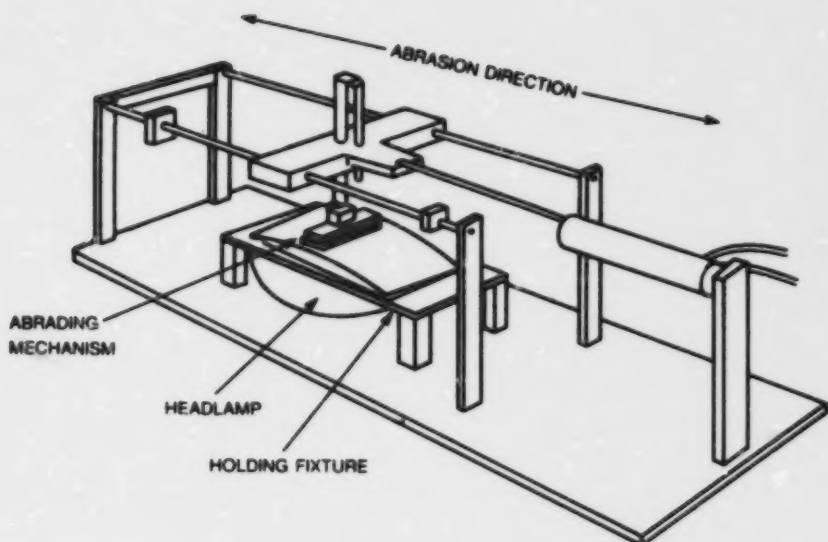
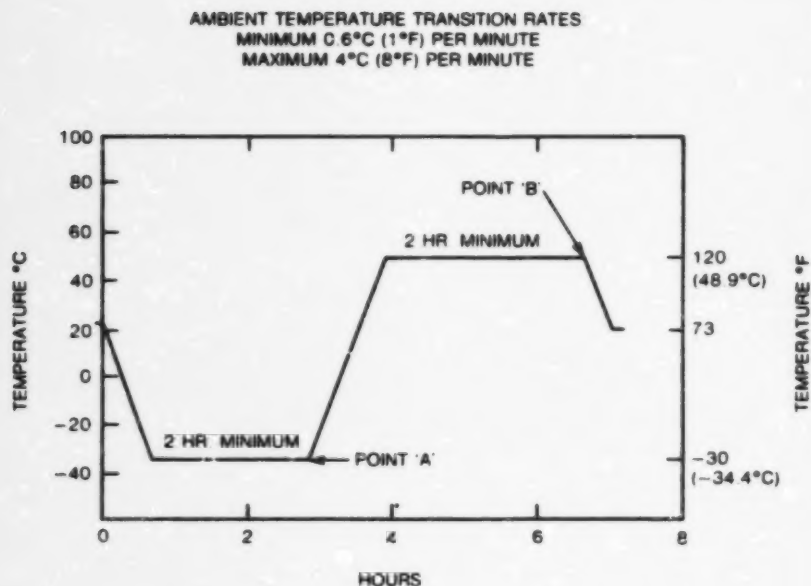


Figure 6



Note: Ambient Conditions 73°F $\pm$ 7° (23°C $\pm$ 4) and 30 $\pm$ 10% RH

- THERMAL CYCLE PROFILE

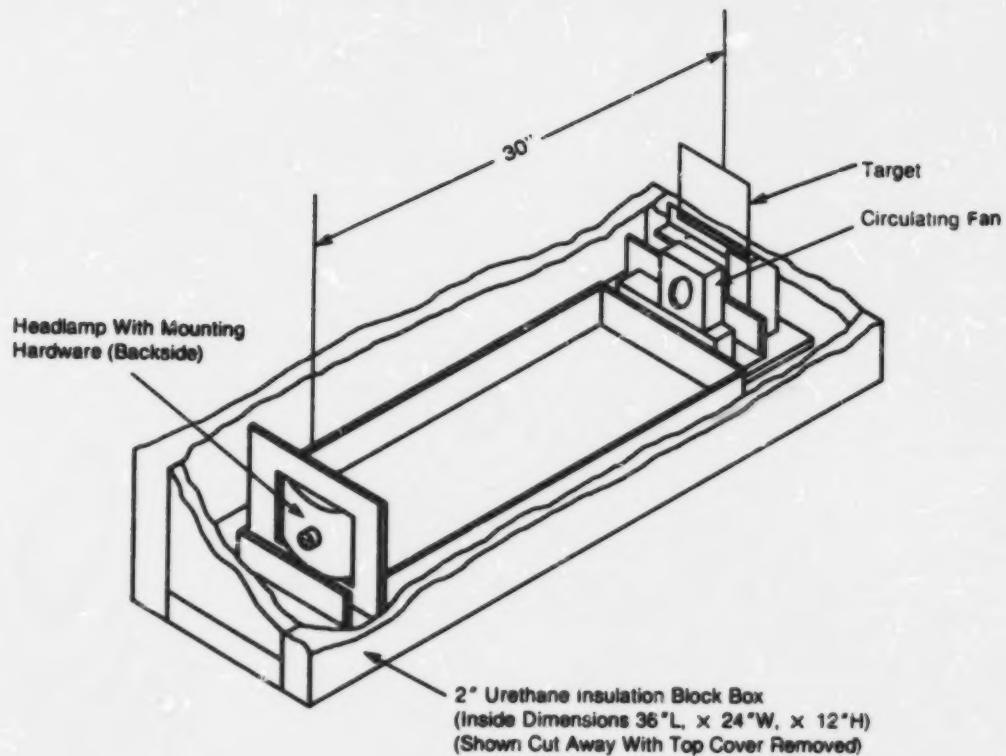
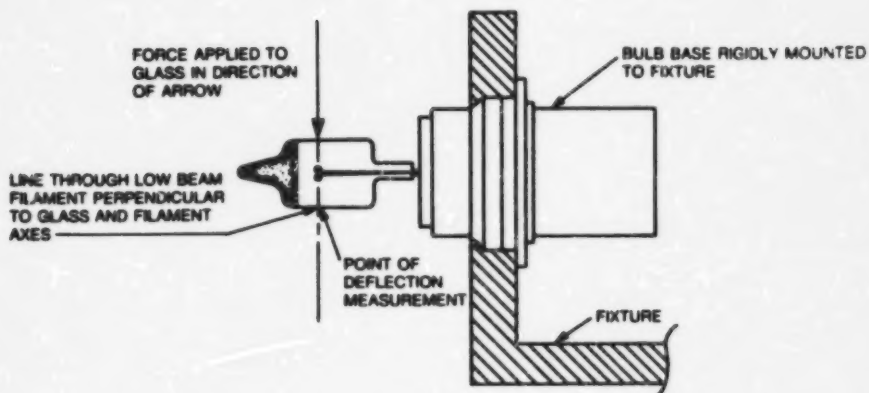


Figure 7. Dirt/Ambient Test Setup

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Figure 8

BULB DEFLECTION TEST



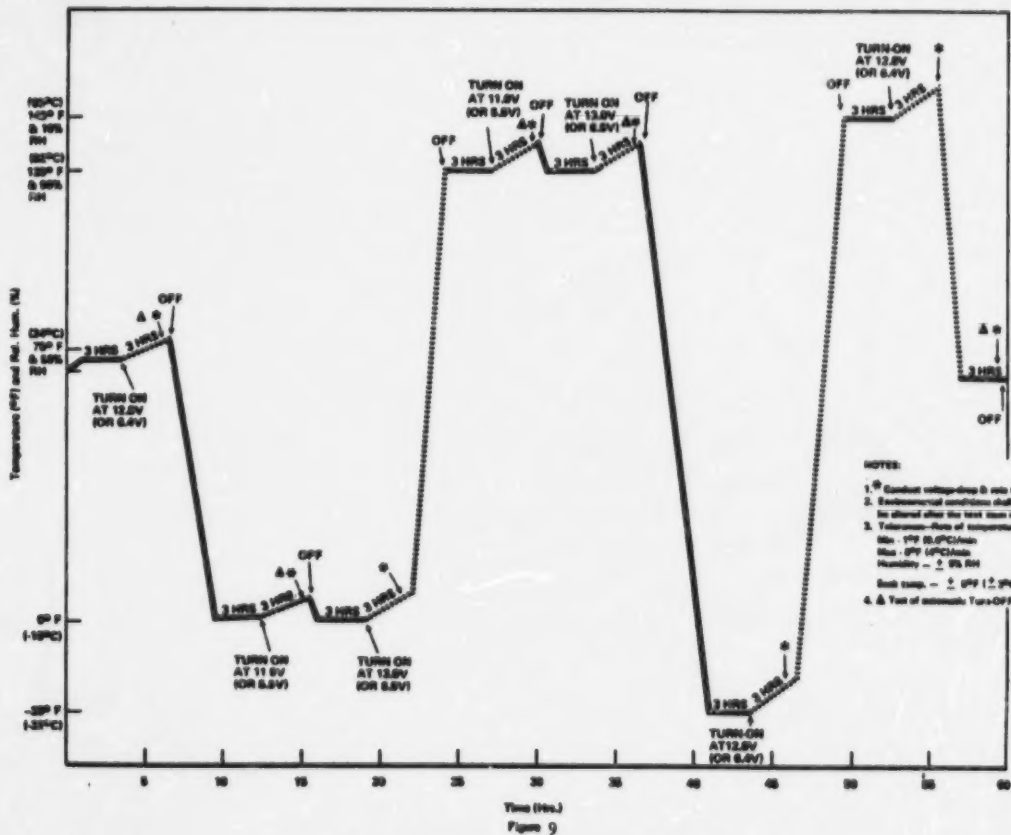


Figure 9 Temperature-Humidity Environmental Test Profile

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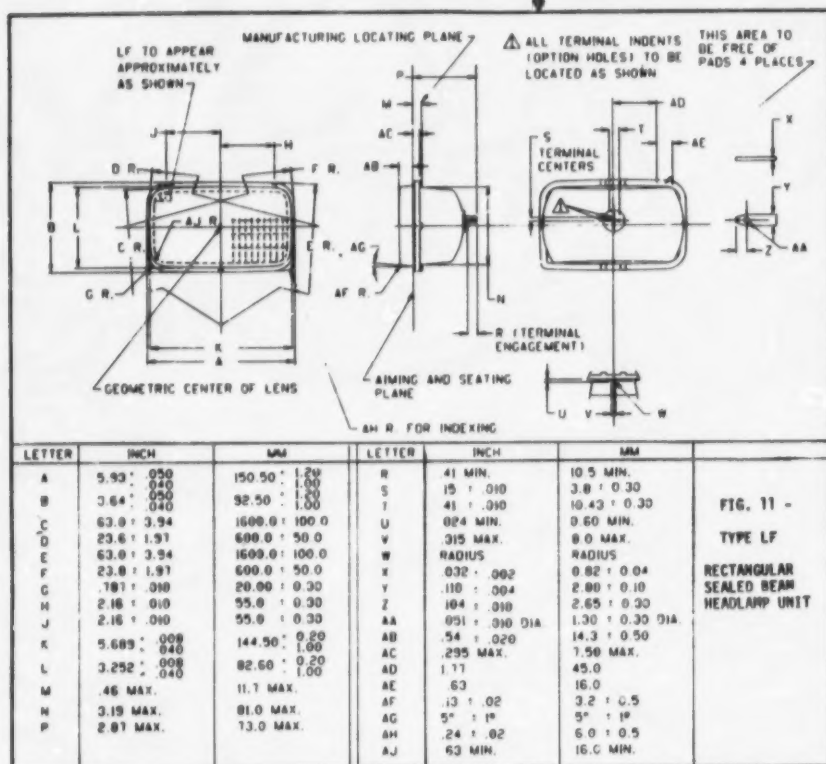
FIGURE 10—MINIMUM DESIGN PHOTOMETRIC REQUIREMENTS FOR CENTER HIGH-MOUNTED STOP LAMPS

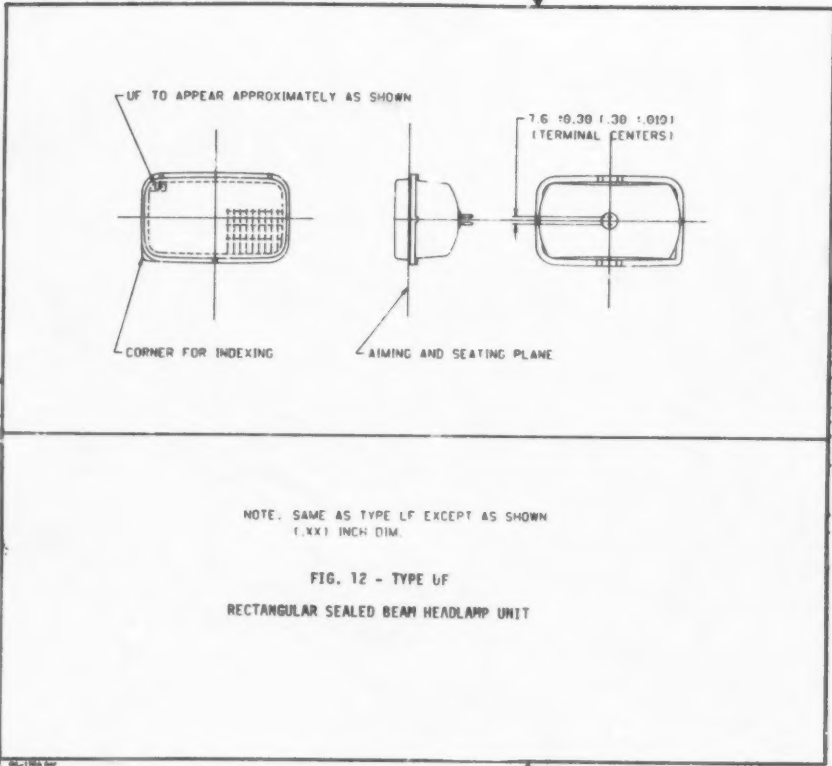
	Test points	Red (cd)
10U.....	10L	8
	V	16
	10R	8
5U and 5D.....	10L	16
	5L	25
	V	25
	5R	25
	10R	16
	10L	16

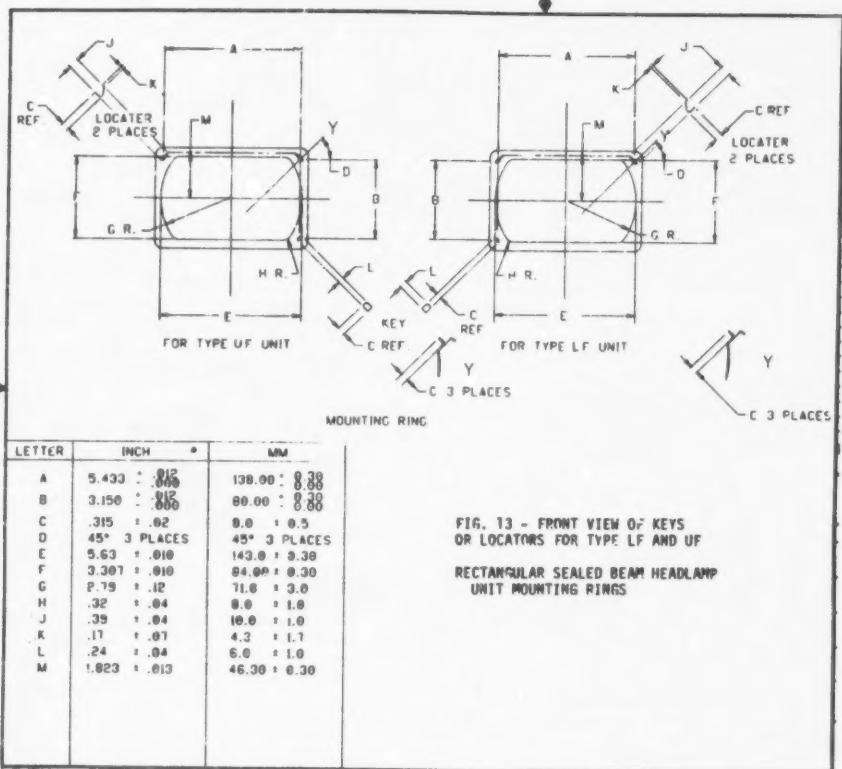
FIGURE 10—MINIMUM DESIGN PHOTOMETRIC REQUIREMENTS FOR CENTER HIGH-MOUNTED STOP LAMPS—Continued

	Test points	Red (cd)
H.....	5L	25
	V	25
	5R	25
	10R	16
	Maximum 160 ¹	

¹ The lamp shall not exceed the listed maximum over an area larger than that generated by a ¼ degree radius within a solid cone angle from 10L to 10R and from 10U to 5D.







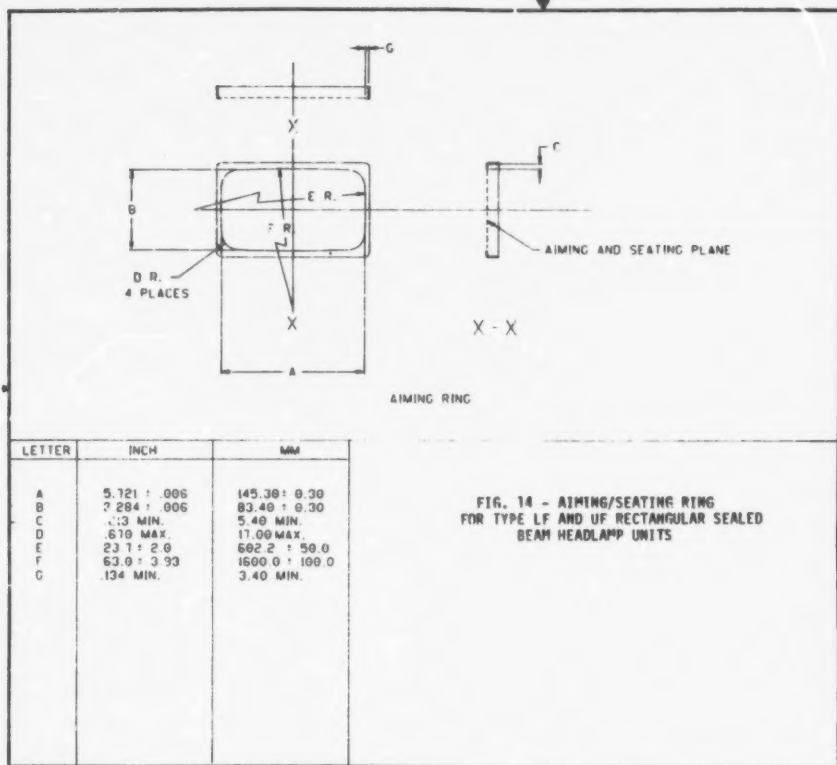


FIG. T5
PHOTOMETRIC TEST POINT VALUES

UPPER BEAM			LOWER BEAM		
Test Points deg ^a	cd. max.	cd. min.	Test Points deg ^a	cd. max.	cd. min.
2U-V	--	1,500	10U-90U ^a	125	--
1U-3R and 3L	--	5,000	1U-1-1/2L to L	700	--
H-V	70,000	40,000	1/2U-1-1/2L to L	1,000	--
			1/2D-1-1/2L to L	3,000	--
			1-1/2U-1R to R	1,400	--
H-3R and 3L	--	15,000	1/2U-1R to 3R	2,700	--
H-6R and 6L	--	5,000	1/2D-1-1/2R	20,000	10,000
H-9R and 9L	--	3,000	1D-6L	--	1,000
H-12R and 12L	--	1,500	1-1/2D-2R	--	15,000
1-1/2D-V	--	5,000	1-1/2D-9L and 9R	--	1,000
1-1/2D-9R and 9L	--	2,000	2D-15L and 15R	--	850
2-1/2D-V	--	2,500	4D-4R	12,500	--
2-1/2D-12R and 12L	--	1,000			
4D-V	5,000	--			

^aFrom the normally exposed surface of the lens face.

^bA tolerance of $\pm 1/4$ deg in location may be allowed for at any test point.

TABLE I—REQUIRED MOTOR VEHICLE LIGHTING EQUIPMENT

Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses, of 80 or More Inches Overall Width

Item	Multipurpose passenger vehicles, trucks, and buses	Trailers	Applicable SAE standard or recommended practice
Headlamps	2 white, 7-inch, Type 2 headlamp units, or 2 white, 5¾-inch, Type 1 headlamp units and 2 white 5¾-inch, Type 2 headlamp units; or 2 white Type 2A headlamp units and 2 white Type 1A headlamp units. 2 white headlamps, Type 2B1 or Type 2D1; or 4 white headlamps, 2 each Type 1C1 and Type 2C1, or Type 1A1 and Type 2A1.	None	J580a, June 1966; J579a, August 1965; J571d, June 1976, and J566, January 1960 J580b, February 1974; J579c, December 1974; J571d, June 1976, and J1132, January 1975.
Taillamps ²	2 red	2 red	J585e, September 1977.
Stoplamps ²	2 red	2 red	J598c, August 1970
License plate lamp ¹	1 white	1 white	J597, October 1961
Reflex reflectors	4 red; 2 amber	4 red; 2 amber	J594f, January 1977
Side marker lamps	4 red; 2 amber	2 red; 2 amber	J592a, July 1972
Backup lamp ¹	1 white	None	J593c, February 1968
Turn signal lamps ²	2 red or amber; 2 amber	2 red or amber	J588e, September 1970
Turn signal operating unit ²	1	None	J589, April 1954
Turn signal flasher	1	None	J590b, October 1965.
Vehicular hazard warning signal operating unit	1	None	J910, January 1966.
Vehicular hazard warning signal flasher	1	None	J945, February 1966.
Identification lamps	3 amber; 3 red	3 red	J592a, July 1972
Clearance lamps	2 amber; 2 red	2 amber; 2 red	J592a, July 1972
Intermediate side marker lamps. ⁴	2 amber	2 amber	J581a, July 1972
Intermediate side reflex reflectors. ⁴	2 amber	2 amber	J514f, January 1977.

¹ See S4.1.1.10.² See S4.1.1.11-12.³ See S4.5.6.⁴ See S4.1.1.3.

TABLE II—LOCATION OF REQUIRED EQUIPMENT

Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses, of 80 or More Inches Overall Width

Item	Location on—		Height above road surface measured from center of item on vehicle at curb weight
	Multipurpose passenger vehicles, trucks, and buses	Trailers	
Headlamps	Headlamps providing the upper beam at the same height, 1 on each side of the vertical centerline; headlamps providing the lower beam, at the same height, 1 on each side of the vertical centerline, as far apart as practicable. If a single lower beam light source is used in a headlamp with two standardized replaceable light sources, it shall be the farthest light source from the vertical centerline.	Not required.	Not less than 22 inches (55.9 cm) nor more than 54 inches (137.2 cm)
Taillamps	On the rear, 1 on each side of the vertical centerline, at the same height, and as far apart as practicable.	On the rear, 1 on each side of the vertical centerline, at the same height, and as far apart as practicable.	Not less than 15 inches, nor more than 72 inches.
Stop lamps	do	do	Do
License plate lamp	At rear license plate, to illuminate the plate from the top or sides.	At rear license plate, to illuminate the plate from the top or sides.	No requirement.
Backup lamp	On the rear.	Not required.	Do
Turn signal lamps	At or near the front—1 amber on each side of the vertical centerline at the same height, and as far apart as practicable.	On the rear—1 red or amber on each side of the vertical centerline, at the same height, and as far apart as practicable.	Not less than 15 inches, nor more than 83 inches.

TABLE II—LOCATION OF REQUIRED EQUIPMENT—Continued

Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses, of 80 or More Inches Overall Width

Item	Location on—		Height above road surface measured from center of item on vehicle at curb weight
	Multipurpose passenger vehicles, trucks, and buses	Trailers	
Identification lamps	On the rear—1 red or amber on each side of the vertical centerline, at the same height, and as far apart as practicable. On the front and rear—3 lamps, amber in front, red in rear, as close as practicable to the top of the vehicle at the same height, as close as practicable to the vertical centerline, with lamp centers spaced not less than 6 inches or more than 12 inches apart. Alternatively, the front lamps may be located as close as practicable to the top of the cab.	On the rear—3 lamps as close as practicable to the top of the vehicle at the same height, as close as practicable to the vertical centerline, with lamp centers spaced not less than 6 inches or more than 12 inches apart.	No requirement.
Clearance lamps	On the front and rear—2 amber lamps on front, 2 red lamps on rear, to indicate the overall width of the vehicle, one on each side of the vertical centerline, at the same height, and as near the top as practicable ¹ .	On the front and rear—2 amber lamps on front, 2 red lamps on rear, to indicate the overall width of the vehicle, one on each side of the vertical centerline, at the same height, and as near the top thereof as practicable ^{2,3,4} .	Do.
Intermediate side marker lamps	On each side—1 amber lamp located at or near the midpoint between the front and rear side marker lamps.	On each side—1 amber lamp located at or near the midpoint between the front and rear side marker lamps.	Not less than 15 inches.
Intermediate side reflex reflectors	On each side—1 amber located at or near the midpoint between the front and rear side reflex reflectors.	On each side—1 amber located at or near the midpoint between the front and rear side reflex reflectors.	Not less than 15 inches nor more than 60 inches.
Reflex reflectors	On the rear—1 red on each side of the vertical centerline, as far apart as practicable, and at the same height ⁵ . On each side—1 red as far to the rear as practicable, and 1 amber as far to the front as practicable.	On the rear—1 red on each side of the vertical centerline, as far apart as practicable, and at the same height. On each side—1 red as far to the rear as practicable, and 1 amber as far to the front as practicable.	Do.
Side marker lamps	do.	do.	Not less than 15 inches, and on the rear of trailers not more than 60 inches.

¹ See S4.3.1.6.² See S4.3.1.2.³ See S4.3.1.4.⁴ See S4.1.1.9.

TABLE III—REQUIRED MOTOR VEHICLE LIGHTING EQUIPMENT

All Passenger Cars and Motorcycles, and Multipurpose Passenger Vehicles, Trucks, and Buses, of Less Than 80 Inches Overall Width

Item	Passenger cars, multipurpose passenger vehicles, trucks, and buses	Trailers	Motorcycles	Applicable SAE standard or recommended practice
Headlamps	2 white, 7-inch, Type 2 headlamp units, or 2 white, 5½-inch, Type 1 headlamp units or 2 white, 5¾-inch, Type 2A headlamp units and 2 white type 1A headlamp units. 2 white headlamps: Type 2B1 or Type 2D1, or 4 white headlamps: 2 each Type 1C1 and Type 2C1 or Type 1A1 and Type 2A1.			J580a, June 1966, J579a, August 1965, J571d, June 1976 and J566, January 1980. J580b, February 1974, J579c, December 1974, J571d, June 1976, J1132, January 1976.

TABLE III—REQUIRED MOTOR VEHICLE LIGHTING EQUIPMENT—Continued

All Passenger Cars and Motorcycles, and Multipurpose Passenger Vehicles, Trucks, and Buses, of Less Than 80 Inches Overall Width

Item	Passenger cars, multipurpose passenger vehicles, trucks, and buses	Trailers	Motorcycles	Applicable SAE standard or recommended practice
Tail lamps ¹	2 red	2 red	1 white 1 red	J584, April 1964 and J586, January 1960 J585e, September 1977
Stop lamps ²	2 red	2 red	1 red	J586c, August 1970.
High-mounted stop lamp.	1 red, for passenger cars only	Not required	Not required	J186a, September 1977.
License plate lamp ¹ .	1 white	1 white	1 white	J587, October 1981.
Parking lamps ²	2 amber or white	None	None	J222, December 1970
Reflex reflectors	4 red; 2 amber	4 red; 2 amber	3 red; 2 amber	J594f, January 1977.
Intermediate side reflex reflectors ³ .	2 amber	2 amber	None	J594f, January 1977.
Intermediate side marker lamps ⁴ .	2 amber	2 amber	None	J582e, July 1972
Side marker lamps.	2 red; 2 amber	2 red; 2 amber	None	J582e, July 1972.
Backup lamp	1 white	None	None	J593c, February 1988
Turn signal lamps ⁵ .	2 red or amber; 2 amber	2 red or amber	2 amber; 2 red or amber.	J588a, September 1970.
Turn signal operating unit, ⁵ a.	1	None	1	J589, April 1964.
Turn signal flasher.	1	None	1	J590b, October 1985.
Vehicular hazard warning signal operating unit.	1	None	None	J910, January 1988.
Vehicular hazard warning signal flasher.	1	None	None	J945, February 1988.

¹ See S4.1.1.10.² See S4.1.1.11-12.³ See S4.5.6.⁴ See S4.1.1.5.⁵ See S4.1.1.3.

TABLE IV—LOCATION OF REQUIRED EQUIPMENT

All Passenger Cars and Motorcycles, and Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses of Less Than 80 Inches Overall Width

Item	Location on—		Height above road surface measured from center of item on vehicle at curb weight
	Passenger cars, multipurpose passenger vehicles, trucks, trailers, and buses	Motorcycles	
Headlamps	Headlamps providing the upper beam at the same height, 1 on each side of the vertical centerline; headlamps providing the lower beam, at the same height, 1 on each side of the vertical centerline, as far apart as practicable. If a single lower beam light source is used in a headlamp with two standardized replaceable light sources, it shall be the farthest light source from the vertical centerline.	On the front, on the vertical centerline, except that if two are used they shall be symmetrically disposed about the vertical centerline.	Not less than 22 inches (55.9 cm) nor more than 54 inches (137.2 cm).

TABLE IV—LOCATION OF REQUIRED EQUIPMENT—Continued

All Passenger Cars and Motorcycles, and Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses of Less Than 80 Inches Overall Width

Item	Location on—		Height above road surface measured from center of item on vehicle at curb weight
	Passenger cars, multipurpose passenger vehicles, trucks, trailers, and buses	Motorcycles	
Tailamps	On the rear—1 on each side of the vertical centerline, at the same height, and as far apart as practicable ² .	On the rear—on the vertical centerline except that if two are used, they shall be symmetrically disposed about the vertical centerline.	Not less than 15 inches, nor more than 72 inches.
Stoplamps	On the rear—1 on each side of the vertical centerline, at the same height, and as far apart as practicable ² .	On the rear—on the vertical centerline except that if two are used, they shall be symmetrically disposed about the vertical centerline.	Not less than 15 inches, nor more than 72 inches.
High-mounted stoplamp	On the rear, on the vertical centerline [See S4.3.1.8], effective September 1, 1985, for passenger cars only.	Not required.	[See S4.3.1.8].
License plate lamp	At rear license plate, to illuminate the plate from the top or sides.	At rear license plate.	No requirement.
Parking lamps	On the front—1 on each side of the vertical centerline, at the same height, and as far apart as practicable.	Not required.	Not less than 15 inches, nor more than 72 inches.
Reflex reflectors	On the rear—1 red on each side of the vertical centerline, at the same height, and as far apart as practicable ² . On each side—1 red as far to the rear as practicable, and 1 amber as far to the front as practicable ² .	On the rear—1 red on the vertical centerline except that, if two are used on the rear, they shall be symmetrically disposed about the vertical centerline. On each side—1 red as far to the rear as practicable, and 1 amber as far to the front as practicable.	Not less than 15 inches, nor more than 60 inches.
Backup lamp	On the rear.	Not required.	No requirement.
Turn signal lamps ¹	At or near the front—1 amber on each side of the vertical centerline, at the same height, and as far apart as practicable. On the rear—1 red or amber on each side of the vertical centerline, at the same height, and as far apart as practicable.	At or near the front—1 amber on each side of the vertical centerline at the same height, and having a minimum horizontal separation distance (centerline of lamps) of 16 inches. Minimum edge to edge separation distance between lamp and headlamp is 4 inches. At or near the rear—1 red or amber on each side of the vertical centerline, at the same height and having a minimum horizontal separation distance (centerline to centerline of lamps) of 9 inches. Minimum edge to edge separation distance between lamp and tail or stop lamp is 4 inches.	Not less than 15 inches, nor more than 80 inches.
Side marker lamps	On each side—1 red as far to the rear as practicable, and 1 amber as far to the front as practicable.	Not required.	Not less than 15 inches.
Intermediate side marker lamps	On each side—1 amber located at or near the midpoint between the front and rear side marker lamps.	Not required.	Not less than 15 inches.
Intermediate side marker reflectors.	On each side—1 amber located at or near the midpoint between the front and rear side marker reflectors.	Not required.	Not less than 15 inches, nor more than 60 inches.

¹ Front turn signal lamps not required for trailers.² See S4.1.1.8.

NOTE: (1) The term "overall width" refers to the nominal design dimension of the widest part of the vehicle, exclusive of signal lamps, marker lamps, outside rear-view mirrors, flexible fender extensions, and mud flaps, determine with doors and win-

dows closed, and the wheels in the straight-ahead position.

This supersedes the interpretation of the term "overall width" appearing in the FEDERAL REGISTER of March 1, 1967 (32 FR 3390).

(2) Paragraph S3.1 and Tables I and III of § 571.108 as amended (32 FR 18033, Dec. 16, 1967), specify that certain lamp assemblies shall conform to applicable SAE Standards. Each of these basically referenced standards subreferences both SAE Standard J575 (tests for motor vehicle lighting devices and components) which in turn references SAE Standard J573 on bulbs, and SAE Standard J567 on bulb sockets.

(3) Paragraph C of SAE Standard J575 states in part: "Where special bulbs are specified, they should be submitted with the devices and the same or similar bulbs used in the tests and operated at their rated mean spherical candlepower." The Administrator has determined that this provision of SAE Standard J575 permits the use of special bulbs, including tubular-type bulbs, which do not conform to the detailed requirements of Table I of SAE Standard J573. It follows that the sockets for special bulbs need not conform to the detailed requirements of SAE Standard J567. These provisions for special bulbs in no way except the lamp assemblies from meeting all performance requirements specified in Federal Standard No. 108, including those specified in the basically referenced SAE Standards, and in the subreferenced SAE Standard J575.

[41 FR 33522, Aug. 23, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 571.108, see the List of CFR Sections Affected in the Finding Aids section of this volume.

EFFECTIVE DATE NOTE: At 50 FR 36996, Sept. 11, 1985, in § 571.108, the item "Identification lamps" in Table II was amended in the "Multipurpose passenger vehicles" column, effective October 11, 1985. For the convenience of the user, the superseded text appears below.

TABLE II—LOCATION OF REQUIRED EQUIPMENT

(Multipurpose passenger vehicles, trucks, trailers, and buses, of 80 or more inches overall width)

Item	Location on—	
	Multipurpose passenger vehicles, trucks, and buses	...
Identification lamps	On the front and rear—3 lamps, amber in front, red in rear, as close as practicable to the top of the vehicle, at the same height, as close as practicable to the vertical centerline, with lamp centers spaced not less than 6 inches or more than 12 inches apart.	...

§ 571.109 Standard No. 109; New pneumatic tires.

S1. Scope. This standard specifies tire dimensions and laboratory test requirements for bead unseating resistance, strength, endurance, and high speed performance; defines tire load ratings; and specifies labeling requirements for passenger car tires.

S2. Application. This standard applies to new pneumatic tires for use on passenger cars manufactured after 1948. However, it does not apply to any tire which has been altered so as to render impossible its use, or its repair for use, as motor vehicle equipment.

S3. Definitions.

"Bead" means that part of the tire made of steel wires, wrapped or reinforced by ply cords, that is shaped to fit the rim.

"Bead separation" means a breakdown of bond between components in the bead area.

"Bias ply tire" means a pneumatic tire in which the ply cords that extend to the beads are laid at alternate angles substantially less than 90° to the centerline of the tread.

"Carcass" means the tire structure, except tread and sidewall rubber.

"Chunking" means the breaking away of pieces of the tread or sidewall.

"Cord" means the strands forming the plies in the tire.

"Cord separation" means cords parting away from adjacent rubber compounds.

"Cracking" means any parting within the tread, sidewall, or innerliner of the tire extending to cord material.

"Groove" means the space between two adjacent tread ribs.

"Innerliner" means the layer(s) forming the inside surface of a tubeless tire that contains the inflating medium within the tire.

"Innerliner separation" means the parting of the innerliner from cord material in the carcass.

"Load rating" means the maximum load a tire is rated to carry for a given inflation pressure.

"Maximum permissible inflation pressure" means the maximum cold inflation pressure to which a tire may be inflated.

"Maximum load rating" means the load rating at the maximum permissible inflation pressure for that tire.

"Open splice" means any parting at any junction of tread, sidewall, or innerliner that extends to cord material.

"Overall width" means the linear distance between the exteriors of the sidewalls of an inflated tire, including elevations due to labeling, decorations, or protective bands or ribs.

"Ply" means a layer of rubber-coated parallel cords.

"Ply separation" means a parting of rubber compound between adjacent plies.

"Pneumatic tire" means a mechanical device made of rubber, chemicals, fabric and steel or other materials, which, when mounted on an automotive wheel, provides the traction and contains the gas or fluid that sustains the load.

"Radial ply tire" means a pneumatic tire in which the ply cords which extend to the beads are laid at substantially 90° to the centerline of the tread.

"Rim" means a metal support for a tire or a tire and tube assembly upon which the tire beads are seated.

"Section width" means the linear distance between the exteriors of the sidewalls of an inflated tire, excluding elevations due to labeling, decoration, or protective bands.

"Sidewall" means that portion of a tire between the tread and the bead.

"Sidewall separation" means the parting of the rubber compound from the cord material in the sidewall.

"Size factor" means the sum of the section width and the outer diameter of a tire determined on the test rim.

"Test rim" means, with reference to a tire to be tested, any rim that is listed as appropriate for use with that tire in accordance with S4.4. For purposes of this section and § 571.110, each rim listing shall include dimensional specifications and a diagram of the rim.

"Tread" means that portion of a tire that comes into contact with the road.

"Tread rib" means a tread section running circumferentially around a tire.

"Tread separation" means pulling away of the tread from the tire carcass.

S4. Requirements.

S4.1 *Size and Construction.* Each tire shall be designed to fit each rim specified for its size designation in each reference cited in the definition of "test rim" in S3.

S4.2 Performance Requirements.

S4.2.1 *General.* Each tire shall conform to each of the following:

(a) It shall meet the requirements specified in S4.2.2 for its tire size designation, type, and maximum permissible inflation pressure.

(b) Its maximum permissible inflation pressure shall be either 32, 36, 40 or 60 psi, or 240, 280, or 300 kPa.

(c) Its load rating shall be that specified in a submission made by an individual manufacturer, pursuant to S4.4.1(a), or in one of the publications described in S4.4.1(b) for its size designation, type and each appropriate inflation pressure. If the maximum load rating for a particular tire size is shown in more than one of the publications described in S4.4.1(b), each tire of that size designation shall have a maximum load rating that is not less than the published maximum load rating, or if there are differing maximum load ratings for the same tire size designation, not less than the lowest published maximum load rating.

(d) If manufactured on or after August 1, 1968, it shall incorporate a tread wear indicator that will provide a visual indication that the tire has worn to a tread depth of $\frac{1}{16}$ inch.

(e) It shall, before being subjected to either the endurance test procedure specified in S5.4 or the high speed performance procedure specified in S5.5,

exhibit no visual evidence of tread, sidewall, ply, cord, innerliner, or bead separation, chunking, broken cords, cracking, or open splices.

(f) It shall meet the requirements of S4.2.2.5 and S4.2.2.6 when tested on a test wheel described in S5.4.2.1 either alone or simultaneously with up to 5 other tires.

S4.2.2 Test requirements.

S4.2.2.1 *Test sample.* For each test sample use:

(a) One tire for physical dimensions, resistance to bead unseating, and strength, in sequence;

(b) Another tire for tire endurance; and

(c) A third tire for high speed performance.

S4.2.2.2 *Physical Dimensions.* Each tire, when measured in accordance with S5.1, shall conform to each of the following:

(a) Its actual section width and overall width shall not exceed the section width specified in a submission made by an individual manufacturer, pursuant to S4.4.1(a) or in one of the publications described in S4.4.1(b) for its size designation and type by more than:

(1) (For tires with a maximum permissible inflation pressure of 32, 36, or 40 psi) 7 percent, or

(2) (For tires with a maximum permissible inflation pressure of 60 psi or 240, 280, or 300 kPa) 7 percent or 0.4 inch, whichever is larger; and

(b) Its size factor shall be at least as large as that specified in a submission made by an individual manufacturer, pursuant to S4.4.1(a), or in one of the publications described in S4.4.1(b) for its size designation and type.

S4.2.2.3 Tubeless tire resistance to bead unseating.

S4.2.2.3.1. When a tubeless tire that has a maximum inflation pressure other than 60 psi is tested in accordance with S5.2, the applied force required to unseat the tire bead at the point of contact shall be not less than:

(a) 1,500 pounds for tires with a designated section width of less than six (6) inches;

(b) 2,000 pounds for tires with a designated section width of six (6) inches or more but less than eight (8) inches;

(c) 2,500 pounds for tires with a designated section width of eight (8) inches or more, using the section width specified in a submission made by an individual manufacturer, pursuant to S4.4.1(a), or in one of the publications described in S4.4.1(b) for the applicable tire size designation and type.

S4.2.2.3.2 When a tire that has a maximum inflation pressure of 60 psi is tested in accordance with S5.2, the applied force required to unseat the bead at the point of contact shall be not less than:

(a) 1,500 pounds for tires with a maximum load rating of less than 880 pounds;

(b) 2,000 pounds for tires with a maximum load rating of 880 pounds or more but less than 1,400 pounds;

(c) 2,500 pounds for tires with a maximum load rating of 1,400 pounds or more, using the maximum load rating marked on the sidewall of the tire.

S4.2.2.4 *Tire strength.* Each tire shall meet the requirements for minimum breaking energy specified in Table 1 when tested in accordance with S5.3.

S4.2.2.5 *Tire endurance.* When the tire has been subjected to the laboratory endurance test specified in S5.4, using a test rim that undergoes no permanent deformation and allows no loss of air through the portion that it comprises of the tire-rim pressure chamber:

(a) There shall be no visual evidence of tread, sidewall, ply, cord, innerliner, or bead separation, chunking, broken cords, cracking, or open splices.

(b) The tire pressure at the end of the test shall be not less than the initial pressures specified in S5.4.1.1.

S4.2.2.6 *High speed performance.* When the tire has been subjected to the laboratory high speed performance test specified in S5.5, using a test rim that undergoes no permanent deformation and allows no loss of air through the portion that it comprises of the tire-rim pressure chamber, the tire shall meet the requirements set forth in S4.2.2.5 (a) and (b).

S4.3 *Labeling requirements.* Except as provided in S4.3.1 and S4.3.2, each tire shall have permanently molded

into or onto both sidewalls, in letters and numerals not less than 0.078 inches high, the information shown in paragraphs S4.3 (a) through (g). On at least one sidewall, the information shall be positioned in an area between the maximum section width and bead of the tire. However, in no case shall the information be positioned on the tire so that it is obstructed by the flange of any rim designated for use with that tire in Standard Nos. 109 and 110 (§§ 571.109 and 571.110 of this part).

(a) One size designation, except that equivalent inch and metric size designations may be used;

(b) Maximum permissible inflation pressure;

(c) Maximum load rating;

(d) The generic name of each cord material used in the plies (both sidewall and tread area) of the tire;

(e) Actual number of plies in the sidewall, and the actual number of plies in the tread area if different;

(f) The words "tubeless" or "tube type" as applicable; and

(g) The word "radial" if the tire is a radial ply tire.

S4.3.1 Each tire shall be labeled with the symbol DOT in the manner specified in Part 574 of this chapter, which shall constitute a certification that the tire conforms to applicable Federal motor vehicle safety standards.

S4.3.2 Each tire shall be labeled with the name of the manufacturer, or brand name and number assigned to the manufacturer in the manner specified in Part 574.

S4.3.3 Each tire manufactured between March 1, 1971, and May 22, 1971, shall either:

(a) Comply with S4.3(d)(2) and S4.3(i) (as effective until May 22, 1971); or

(b) Be labeled with the tire identification number required by § 574.5 of this chapter and comply with S4.3.1 and S4.3.2 (as effective on and after May 22, 1971).

S4.3.4 If the maximum inflation pressure of a tire is 240, 280 or 300 kPa, then:

(a) Each marking of that inflation pressure pursuant to S4.3(b) shall be followed in parenthesis by the equivalent

inflation pressure in psi, rounded to the next higher whole number; and

(b) Each marking of the tire's maximum load rating pursuant to S4.3(c) in kilograms shall be followed in parenthesis by the equivalent load rating in pounds, rounded to the nearest whole number.

S4.3.5 If the maximum inflation pressure of a tire is 60 psi, the tire shall have permanently molded into or onto both sidewalls, in letters and numerals not less than 1/8 inch high, the words "Inflate to 60 psi". On both sidewalls, the words shall be positioned in an area between the tire shoulder and the bead of the tire. However, in no case shall the words be positioned on the tire so that they are obstructed by the flange of any rim designated for use with that tire in this standard or in Standard No. 110 (§ 571.110 of this part).

S4.4 *Tire and rim matching information.*

S4.4.1 Each manufacturer of tires shall ensure that a listing of the rims that may be used with each tire that he produces is provided to the public. A listing compiled in accordance with paragraph (a) of this section need not include dimensional specifications or diagram of a rim if the rim's dimensional specifications and diagram are contained in each listing published in accordance with paragraph (b). The listing shall be in one of the following forms:

(a) Listed by manufacturer name or brand name in a document furnished to dealers of the manufacturer's tires, to any person upon request, and in duplicate to: Office of Vehicle Safety Standards, Crash Avoidance Division, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, D.C. 20590; or

(b) Contained in publications, current at the date of manufacture of the tire or any later date, of at least one of the following organizations:

The Tire and Rim Association
The European Tyre and Rim Technical Organisation
Japan Automobile Tire Manufacturers' Association, Inc.
Deutsche Industrie Norm
British Standards Institution
Scandinavian Tire and Rim Organization

S4.4.2 Information contained in any publication specified in S4.4.1(b) which lists general categories of tires and rims by size designation, type of construction and/or intended use, shall be considered to be manufacturer's information pursuant to S4.4.1 for the listed tires and rims, unless the publication itself or specific information provided according to S4.4.1(a) indicates otherwise.

S5. Test procedures.

S5.1 Physical Dimensions. Determine tire physical dimensions under uniform ambient conditions as follows:

(a) Mount the tire on a test rim having the test rim width specified in a submission made by an individual manufacturer, pursuant to S4.4.1(a), or in one of the publications described in S4.4.1(b) for that tire size designation and inflate it to the applicable pressure specified in Table II.

(b) Condition it at ambient room temperature for at least 24 hours.

(c) Readjust pressure to that specified in (a).

(d) Caliper the section width and overall width at six points approximately equally spaced around the tire circumference.

(e) Record the average of these measurements as the section width and overall width, respectively.

(f) Determine tire outer diameter by measuring the maximum circumference of the tire and dividing this dimension by π (3.14).

S5.2 Tubeless tire bead unseating resistance.

S5.2.1 Preparation of tire-wheel assembly.

S5.2.1.1 Wash the tire, dry it at the beads, and mount it without lubrication or adhesives on a clean, painted test rim.

S5.2.1.2 Inflate it to the applicable pressure specified in Table II at ambient room temperature.

S5.2.1.3 Mount the wheel and tire in a fixture shown in Figure 1, and force the bead unseating block shown in Figure 2 or Figure 2A against the tire sidewall as required by the geometry of the fixture. However, in testing a tire that has an inflation pressure of 60 psi, only use the bead unseating block described in Figure 2A.

S5.2.2 Test procedure.

S5.2.2.1 Apply a load through the block to the tire outer sidewall at the distance specified in Figure 1 for the applicable wheel size at a rate of 2 inches per minute, with the load arm substantially parallel to the tire and rim assembly at the time of engagement.

S5.2.2.2 Increase the load until the bead unseats or the applicable value specified in S4.2.2.3 is reached.

S5.2.2.3 Repeat the test at least four places equally spaced around the tire circumference.

S5.3 Tire strength.

S5.3.1 Preparation of tire.

S5.3.1.1 Mount the tire on a test rim and inflate it to the applicable pressure specified in Table II.

S5.3.1.2 Condition it at room temperature for at least 3 hours; and

S5.3.1.3 Readjust its pressure to that specified in S5.3.1.1.

S5.3.2 Test procedure.

S5.3.2.1 Force a $\frac{3}{4}$ -inch diameter cylindrical steel plunger with a hemispherical end perpendicularly into the tread rib as near to the centerline as possible, avoiding penetration into the tread groove, at the rate of 2 inches per minute.

S5.3.2.2 Record the force and penetration at five test points equally spaced around the circumference of the tire. If the tire fails to break before the plunger is stopped by reaching the rim, record the force and penetration as the rim is reached and use these values in S5.3.2.3.

S5.3.2.3 Compute the breaking energy for each test point by means of the following formula:

$$W = [(F \cdot P) / 2]$$

where

W = Energy, inch-pounds;

F = Force, pounds; and

P = Penetration, inches.

S5.3.2.4 Determine the breaking energy value for the tire by computing the average of the five values obtained in accordance with S5.3.2.3.

S5.4 Tire endurance.

S5.4.1 Preparation of tire.

S5.4.1.1 Mount a new tire on a test rim and inflate it to the applicable pressure specified in Table II.

S5.4.1.2 Condition the tire assembly to $100 \pm 5^\circ$ F. for at least three hours.

S5.4.1.3 Readjust tire pressure to that specified in S5.4.1.1 immediately before testing.

S5.4.2 Test procedure.

S5.4.2.1 Mount the tire and wheel assembly on a test axle and press it against a flat faced steel test wheel 67.23 inches in diameter and at least as wide as the section width of the tire to be tested or an approved equivalent test wheel, with the applicable test load specified in the table in S5.4.2.3 for the tire's size designation, type, and maximum permissible inflation pressure.

S5.4.2.2 During the test, the air surrounding the test area shall be $100 \pm 5^\circ\text{F}$.

S5.4.2.3 Conduct the test at 50 miles per hour in accordance with the following schedule without pressure adjustment or other interruptions:

The loads for the following periods are the specified percentage of the maximum load rating marked on the tire sidewall:

	Percent
4 hours	85
6 hours	90
24 hours	100

S5.4.2.4 Immediately after running the tire the required time, measure its inflation pressure. Allow the tire to cool for one hour. Then deflate the

tire, remove it from the test rim, and inspect it for the conditions specified in S4.2.2.5(a).

S5.5 High speed performance.

S5.5.1 After preparing the tire in accordance with S5.4.1, mount the tire and wheel assembly in accordance with S5.4.2.1, and press it against the test wheel with a load of 88 percent of the tire's maximum load rating as marked on the tire sidewall.

S5.5.2 Break in the tire by running it for 2 hours at 50 m.p.h.

S5.5.3 Allow to cool to $100 \pm 5^\circ\text{F}$ and readjust the inflation pressure to the applicable pressure specified in Table II.

S5.5.4 Without readjusting inflation pressure, test at 75 m.p.h. for 30 minutes, 80 m.p.h. for 30 minutes, and 85 m.p.h. for 30 minutes.

S5.5.5 Immediately after running the tire the required time, measure its inflation pressure. Allow the tire to cool for one hour. Then deflate the tire, remove it from the test rim, and inspect it for the conditions specified in S4.2.2.5(a).

S6. Nonconforming tires. No tire that is designed for use on passenger cars and manufactured on or after October 1, 1972, but does not conform to all the requirements of this standard, shall be sold, offered for sale, introduced or delivered for introduction into interstate commerce, or imported into the United States, for any purpose.

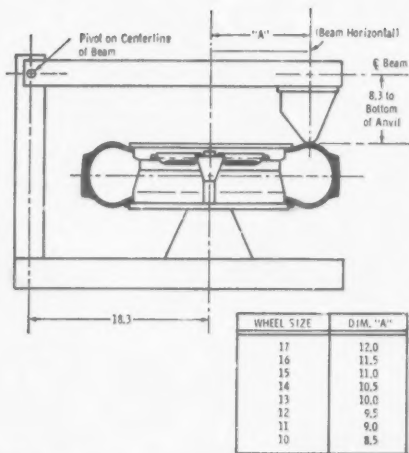
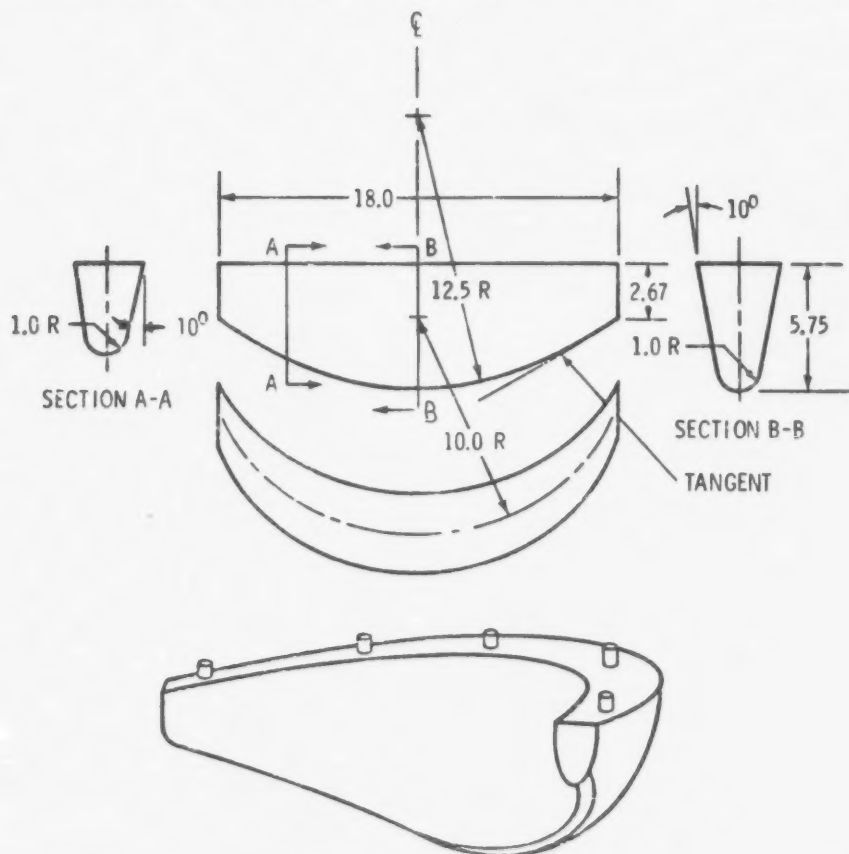


FIGURE 1—BEAD UNSEATING FIXTURE DIMENSIONS IN INCHES

Wheel size	Dimension A for tires with maximum inflation pressure	
	Other than 60 lb./in ²	60 lb./in ²
17	12.0	
16	11.5	9.9
15	11.0	9.4
14	10.5	8.9
13	10.0	8.4
12	9.5	
11	9.0	
10	8.5	
320	8.50	
340	9.00	
345	9.25	
365	9.75	
370	10.00	
390	11.00	
415	11.50	



MATERIAL: Cast Aluminum 355
T-6 Condition
Finish-50 Micro Inch

FIGURE 2 — Diagram of Bead Unseating Block Dimensions in Inches

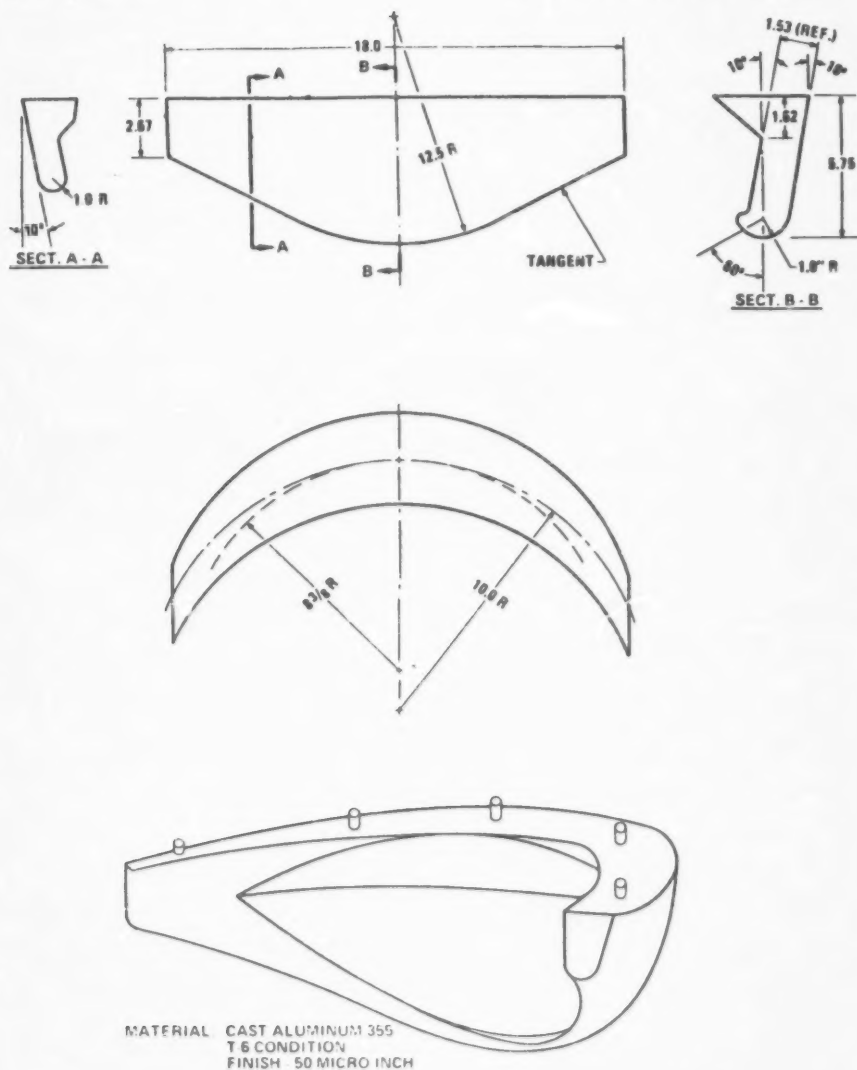


FIGURE 2A — DIAGRAM OF BEAD UNSEATING BLOCK
 DIMENSIONS IN INCHES

APPENDIX A

The following tables list tire sizes and tire constructions with proper load and inflation values. The tables group tires of related constructions and load/inflation values. Persons requesting the addition of new tire sizes to the tables or the addition of tables for new tire constructions may, when the additions requested are compatible with existent groupings, or when adequate justification for new tables exists, submit five (5) copies of information and data supporting the request to the Secretary of Transportation, Attention: Motor Vehicle Programs, National Highway Traffic Safety Administration, U.S. Department of Transportation, Washington, D.C. 20590.

The information should contain the following:

1. The tire size designation, and a statement either that the tire is an addition to a category of tires listed in

the tables or that it is in a new category for which a table has not been developed.

2. The tire dimensions, including aspect ratio, size factor, section width, overall width, and test rim size.

3. The load-inflation schedule of the tire.

4. A statement as to whether the tire size designation and load inflation schedule has been coordinated with the Tire and Rim Association, the European Tyre and Rim Technical Organization, the Society of Manufacturers and Traders Limited, the Japan Automobile Tire Manufacturers Association, the Deutsche Industrie Norm, and the Scandinavian Tire and Rim Organization.

5. Copies of test data sheets showing test conditions, results and conclusions obtained for individual tests specified in § 571.109.

6. Justification for the additional tire sizes.

APPENDIX A—FEDERAL MOTOR VEHICLE SAFETY STANDARD NO. 109

TABLE I-A—FOR BIAS PLY TIRES WITH DESIGNATED SECTION WIDTH OF 6 INCHES AND ABOVE

Cord material	Maximum permissible inflation					
	32 lb/in ²	36 lb/in ²	40 lb/in ²	240 kPa	280 kPa	300 kPa
Rayon (in-lbs)	1,650	2,574	3,300	1,650	3,300	1,650
Nylon or polyester (in-lbs)	2,600	3,900	5,200	2,600	5,200	2,600

Table I-B.—FOR BIAS PLY TIRES WITH DESIGNATED SECTION WIDTH BELOW 6 IN.

Cord material	Maximum permissible inflation					
	32 lb/in ²	36 lb/in ²	40 lb/in ²	240 kPa	280 kPa	300 kPa
Rayon (in-lbs)	1,000	1,875	2,500	1,000	2,500	1,000
Nylon or polyester (in-lbs)	1,950	2,925	3,900	1,950	3,900	1,950

TABLE I-C—FOR RADIAL PLY TIRES

Size designation	Maximum permissible inflation					
	32 lb/in ²	36 lb/in ²	40 lb/in ²	240 kPa	280 kPa	300 kPa
Below 160 mm (in-lbs)	1,950	2,925	3,900	1,950	3,900	1,950
160 mm or above (in-lbs)	2,600	3,900	5,200	2,600	5,200	2,600

TABLE I-D—FOR TIRES WITH 60 LB/IN² MAXIMUM PERMISSIBLE INFLATION PRESSURE AND MAXIMUM LOAD RATING OF 880 LB. AND ABOVE

Cord material	Inch pounds
Rayon	1,650
Nylon or polyester	2,600

TABLE I-E—FOR TIRES WITH 60 LB/IN² MAXIMUM PERMISSIBLE INFLATION PRESSURE AND MAXIMUM LOAD RATING BELOW 880 LB.

Cord material	Inch-pounds
Rayon	1,000
Nylon or polyester	1,950

TABLE II—TEST INFLATION PRESSURES

Maximum permissible inflation pressure	32 lb/in ²	36 lb/in ²	40 lb/in ²	60 lb/in ²	240 kPa	280 kPa	300 kPa
Pressure to be used in tests for physical dimensions, bead unseating, tire strength, and tire endurance	24	28	32	52	180	220	180
Pressure to be used in test for high-speed performance	30	34	38	58	220	260	220

(Secs. 102, 103, 108, 109, 110, 119, 201 and 202, Pub. L. 89-563, 80 Stat. 718; 15 U.S.C. 1392, 1397, 1399, 1407, 1421, 1422; delegation

of authority at 49 CFR 1.50 and 49 CFR 501.8)

[38 FR 30235, Nov. 1, 1973]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 571.109, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 571.110 Standard No. 110; Tire selection and rims.

S1. Purpose and scope. This standard specifies requirements for tire selection to prevent tire overloading.

S2. Application. This standard applies to passenger cars.

S3. Definitions.

"Accessory weight" means the combined weight (in excess of those standard items which may be replaced) of automatic transmission, power steering, power brakes, power windows, power seats, radio, and heater, to the extent that these items are available as factory-installed equipment (whether installed or not).

"Curb weight" means the weight of a motor vehicle with standard equipment including the maximum capacity of fuel, oil, and coolant, and, if so equipped, air conditioning and additional weight optional engine.

"Maximum loaded vehicle weight" means the sum of—

- (a) Curb weight;
- (b) Accessory weight;
- (c) Vehicle capacity weight; and
- (d) Production options weight.

"Normal occupant weight" means 150 pounds times the number of occupants specified in the second column of Table I.

"Occupant distribution" means distribution of occupants in a vehicle as specified in the third column of Table I.

"Production options weight" means the combined weight of those installed regular production options weighing over 5 pounds in excess of those standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim.

"Vehicle capacity weight" means the rated cargo and luggage load plus 150 pounds times the vehicles designated seating capacity.

"Vehicle maximum load on the tire" means that load on an individual tire that is determined by distributing to

each axle its share of the maximum loaded vehicle weight and dividing by two.

"Vehicle normal load on the tire" means that load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight (distributed in accordance with Table I) and dividing by 2.

S4. Requirements.

S4.1 General. Passenger Cars shall be equipped with tires that meet the requirements of § 571.109, "New Pneumatic Tires—Passenger Cars."

S4.2 Tire load limits.

S4.2.1 The vehicle maximum load on the tire shall not be greater than the applicable maximum load rating as marked on the sidewall of the tire.

S4.2.2 The vehicle normal load on the tire shall not be greater than the test load used in the high speed performance test specified in S5.5 of § 571.109 for that tire.

S4.3 Placard. A placard, permanently affixed to the glove compartment door or an equally accessible location, shall display the—

(a) Vehicle capacity weight;

(b) Designated seating capacity (expressed in terms of total number of occupants and in terms of occupants for each seat location);

(c) Vehicle manufacturer's recommended cold tire inflation pressure for maximum loaded vehicle weight and, subject to the limitations of S4.3.1, for any other manufacturer-specified vehicle loading condition; and

(d) Vehicle manufacturer's recommended tire size designation.

S4.3.1 No inflation pressure other than the maximum permissible inflation pressure may be specified unless—

(a) It is less than the maximum permissible inflation pressure;

(b) The vehicle loading condition for that pressure is specified; and

(c) The tire load rating specified in a submission by an individual manufacturer, pursuant to S4.4.1(a) of Motor Vehicle Safety Standard No. 109, or contained in one of the publications described in S4.4.1(b) of Motor Vehicle Safety Standard No. 109 for the tire size at that inflation pressure is not less than the vehicle load on the tire for that vehicle loading condition.

S4.4 Rims.

S4.4.1 Requirements. Each rim shall:

(a) Be constructed to the dimensions of a rim that is listed pursuant to the definition of "test rim" in paragraph S3. of § 571.109 (Standard No. 109) for use with the tire size designation with which the vehicle is equipped.

(b) In the event of rapid loss of inflation pressure with the vehicle traveling in a straight line at a speed of 60 miles per hour, retain the deflated tire until the vehicle can be stopped with a controlled braking application.

TABLE 1.—OCCUPANT LOADING AND DISTRIBUTION FOR VEHICLE NORMAL LOAD FOR VARIOUS DESIGNATED SEATING CAPACITIES

Designated seating capacity, number of occupants	Vehicle normal load, number of occupants	Occupant distribution in a normally loaded vehicle
2 through 4	2	2 in front
5 through 10	3	2 in front, 1 in second seat

(Secs. 192, 119, 201 and 202, Pub. L. 89-563, 80 Stat. 718; 15 U.S.C. 1392, 1407, 1421 and 1422; delegation of authority at 49 CFR 1.50, 501.8)

[36 FR 22902, Dec. 2, 1971, as amended at 37 FR 23727, Nov. 8, 1972; 40 FR 5530, Feb. 6, 1975; 47 FR 36183, Aug. 19, 1982; 49 FR 38612, Oct. 1, 1984]

§ 571.111 Standard No. 111: Rearview mirrors.

S1. Scope. This standard specifies requirements for the performance and location of rearview mirrors.

S2. Purpose. The purpose of this standard is to reduce the number of deaths and injuries that occur when the driver of a motor vehicle does not have a clear and reasonably unobstructed view to the rear.

S3. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, buses, schoolbuses and motorcycles.

S4. Definitions.

"Convex mirror" means a mirror having a curved reflective surface whose shape is the same as that of the exterior surface of a section of a sphere.

"Unit magnification mirror" means a plane or flat mirror with a reflective surface through which the angular height and width of the image of an object is equal to the angular height and width of the object when viewed directly at the same distance except for flaws that do not exceed normal manufacturing tolerances. For the purposes of this regulation a prismatic day-night adjustment rearview mirror one of whose positions provides unit magnification is considered a unit magnification mirror.

S5. Requirements for passenger cars.

S5.1 Inside rearview mirror. Each passenger car shall have an inside rearview mirror of unit magnification.

S5.1.1 Field of view. Except as provided in S5.3, the mirror shall provide a field of view with an included horizontal angle measured from the projected eye point of at least 20 degrees, and sufficient vertical angle to provide a view of a level road surface extending to the horizon beginning at a point not greater than 200 feet to the rear of the vehicle when the vehicle is occupied by the driver and four passengers or the designed occupant capacity, if less, based on an average occupant weight of 150 pounds. The line of sight may be partially obscured by seated occupants or by head restraints. The location of the driver's eye reference points shall be those established in Motor Vehicle Safety Standard No. 104 (§ 571.104) or a nominal location appropriate for any 95th percentile male driver.

S5.1.2 Mounting. The mirror mounting shall provide a stable support for the mirror, and shall provide for mirror adjustment by tilting in both the horizontal and vertical directions. If the mirror is in the head impact area, the mounting shall deflect, collapse or break away without leaving sharp edges when the reflective surface of the mirror is subjected to a force of 90 pounds in any forward direction that is not more than 45° from the forward longitudinal direction.

S5.2 Outside rearview mirror—driver's side.

S5.2.1 Field of view. Each passenger car shall have an outside mirror of unit magnification. The mirror shall

provide the driver a view of a level road surface extending to the horizon from a line, perpendicular to a longitudinal plane tangent to the driver's side of the vehicle at the widest point, extending 8 feet out from the tangent plane 35 feet behind the driver's eyes, with the seat in the rearmost position. The line of sight may be partially obscured by rear body or fender contours. The location of the driver's eye reference points shall be those established in Motor Vehicle Safety Standard No. 104 (§ 571.104) or a nominal location appropriate for any 95th percentile male driver.

S5.2.2 Mounting. The mirror mounting shall provide a stable support for the mirror, and neither the mirror nor the mounting shall protrude farther than the widest part of the vehicle body except to the extent necessary to produce a field of view meeting or exceeding the requirements of S5.2.1. The mirror shall not be obscured by the unwiped portion of the windshield, and shall be adjustable by tilting in both horizontal and vertical directions from the driver's seated position. The mirror and mounting shall be free of sharp points or edges that could contribute to pedestrian injury.

S5.3 Outside rearview mirror passenger's side. Each passenger car whose inside rearview mirror does not meet the field of view requirements of S5.1.1 shall have an outside mirror of unit magnification or a convex mirror installed on the passenger's side. The mirror mounting shall provide a stable support and be free of sharp points or edges that could contribute to pedestrian injury. The mirror need not be adjustable from the driver's seat but shall be capable of adjustment by tilting in both horizontal and vertical directions.

S5.4 Convex mirror requirements. Each motor vehicle using a convex mirror to meet the requirements of S5.3 shall comply with the following requirements:

S5.4.1 When each convex mirror is tested in accordance with the procedures specified in S12. of this standard, none of the radii of curvature readings shall deviate from the aver-

age radius of curvature by more than plus or minus 12.5 percent.

S5.4.2 Each convex mirror shall have permanently and indelibly marked at the lower edge of the mirror's reflective surface, in letters not less than 3/16 of an inch nor more than 1/4 inch high the words "Objects in Mirror Are Closer Than They Appear."

S5.4.3 The average radius of curvature of each such mirror, as determined by using the procedure in S12., shall be not less than 35 inches and not more than 65 inches.

S6. Requirements for multipurpose passenger vehicles, trucks, and buses, other than schoolbuses, with GVWR of 10,000 pounds or less.

S6.1 Each multipurpose passenger vehicle, truck and bus, other than a school bus, with a GVWR of 10,000 pounds or less shall have either—

(a) Mirrors that conform to the requirements of S5.; or

(b) Outside mirrors of unit magnification, each with not less than 19.5 in² of reflective surface, installed with stable supports on both sides of the vehicle, located so as to provide the driver a view to the rear along both sides of the vehicle, and adjustable in both the horizontal and vertical directions to view the rearward scene.

S7. Requirements for multipurpose passenger vehicles and trucks with a GVWR of more than 10,000 and less than 25,000 pounds and buses, other than school buses, with a GVWR of more than 10,000 pounds.

S7.1 Each multipurpose passenger vehicle and truck with a GVWR of more than 10,000 pounds and less than 25,000 pounds and each bus, other than a school bus, with a GVWR of more than 10,000 pounds shall have outside mirrors of unit magnification, each with not less than 50 in² of reflective surface, installed with stable supports on both sides of the vehicle. The mirrors shall be located so as to provide the driver a view to the rear along both sides of the vehicle and shall be adjustable both in the horizontal and vertical directions to view the rearward scene.

S8. Requirements for multipurpose passenger vehicles and trucks with a GVWR of 25,000 pounds or more.

S8.1 Each multipurpose passenger vehicle and truck with a GVWR of 25,000 pounds or more shall have outside mirrors of unit magnification, each with not less than 50 in² of reflective surface, installed with stable supports on both sides of the vehicle. The mirrors shall be located so as to provide the driver a view to the rear along both sides of the vehicle and shall be adjustable both in the horizontal and vertical directions to view the rearward scene.

S9. Requirements for school buses.

S9.1 *Outside rearview mirrors.* Each school bus shall have outside mirrors of unit magnification, each with not less than 50 in² of reflective surface, installed with stable supports on both sides of the vehicle. The mirrors shall be located so as to provide the driver a view to the rear along both sides of the vehicle and shall be adjustable both in the horizontal and vertical directions to view the rearward scene.

S9.2 *Outside cross view mirror.* Each school bus, except one which is a forward control vehicle, shall have a convex mirror which complies with the requirements in paragraphs (a) and (b) of this section.

(a) The convex mirror shall have a radius of curvature not less than 3.5 inches and not more than 25 inches. A convex mirror whose radius of curvature at its periphery is not less than 12 inches and not more than 25 inches shall have a surface area which is not less than 40 square inches. A convex mirror whose radius of curvature at any point on the mirror is less than 12 inches shall have a projected area of not less than 40 square inches, measured on a plane at a right angle to the mirror's axis. A convex mirror with a non-uniform radius shall comply with the following criteria:

(1) The radius at the periphery of the mirror shall be not less than 75 percent of the radius at the center of the mirror.

(2) Along the intersection of any plane containing the axis of symmetry of the mirror and the surface of the mirror, the length of the radius, as measured by a spherometer, shall be monotonically non-increasing when

moving from the axis of symmetry to the periphery along the intersection.

(3) Along the intersection described in paragraph (a)(2) of this section there shall be no discontinuities in the slope of the surface of the mirror.

(b) The mirror shall be installed with a stable support, and mounted so as to provide the driver a view of the front bumper and the area in front of the bus.

S10. Requirements for motorcycles.

S10.1 Each motorcycle shall have either a mirror of unit magnification with not less than 12.5 in² of reflective surface, or a convex mirror with not less than 10 in² of reflective surface and an average radius of curvature not less than 20 inches and not greater than 60 inches, installed with a stable support, and mounted so that the horizontal center of the reflective surface is at least 11 inches outward of the longitudinal centerline of the motorcycle. The mirror shall be adjustable by tilting in both the horizontal and vertical directions.

S11. *Mirror construction.* The average reflectance value of the reflective film employed on any mirror required by this standard, determined in accordance with SAE Recommended Practice J964a, August 1974, shall be at least 35 percent. If a mirror is of the selective position prismatic type, the reflectance value in the night driving position shall be at least 4 percent.

S12. Determination of Radius of Curvature.

S12.1 To determine the average radius of curvature of a convex mirror, use a 3-point linear spherometer, which meets the requirements of S12.2, at the 10 test positions shown in Figure 1 and record the readings for each position.

S12.2 The 3-point linear spherometer has two outer fixed legs 1.5 inches apart and one inner movable leg at the mid-point. The spherometer has a dial indicator with a scale that can be read accurately to 0.0001 inches, with the zero reading being a flat surface.

S12.3 The 10 test positions on the image display consist of two positions at right angles to each other at each of five locations as shown in Figure 1. The locations are at the center of the mirror, at the left and right ends of a

horizontal line that bisects the mirror and at the top and bottom ends of a vertical line that bisects the mirror. None of the readings are within a 0.25-inch border on the edge of the image display.

S12.4 At each position, the spherometer is held perpendicular to the convex mirror-surface and a record is made of the reading on the dial indicator to the nearest 0.0001 inch.

S12.5 Convert the dial reading data for each of the 10 test positions to radius of curvature calculations using Table I. Consider the change as linear for dial readings that fall between two numbers in Table I.

S12.6 Calculate the average radius of curvature by adding all 10 radius of curvature calculations and dividing by ten.

S12.7 Determine the numerical difference between the average radius of curvature and each of the 10 individual radius of curvature calculations determined in S12.5.

S12.8 Calculate the greatest percentage deviation by dividing the greatest numerical difference determined in S12.7 by the average radius of curvature and multiply by 100.

[4910-59-C]

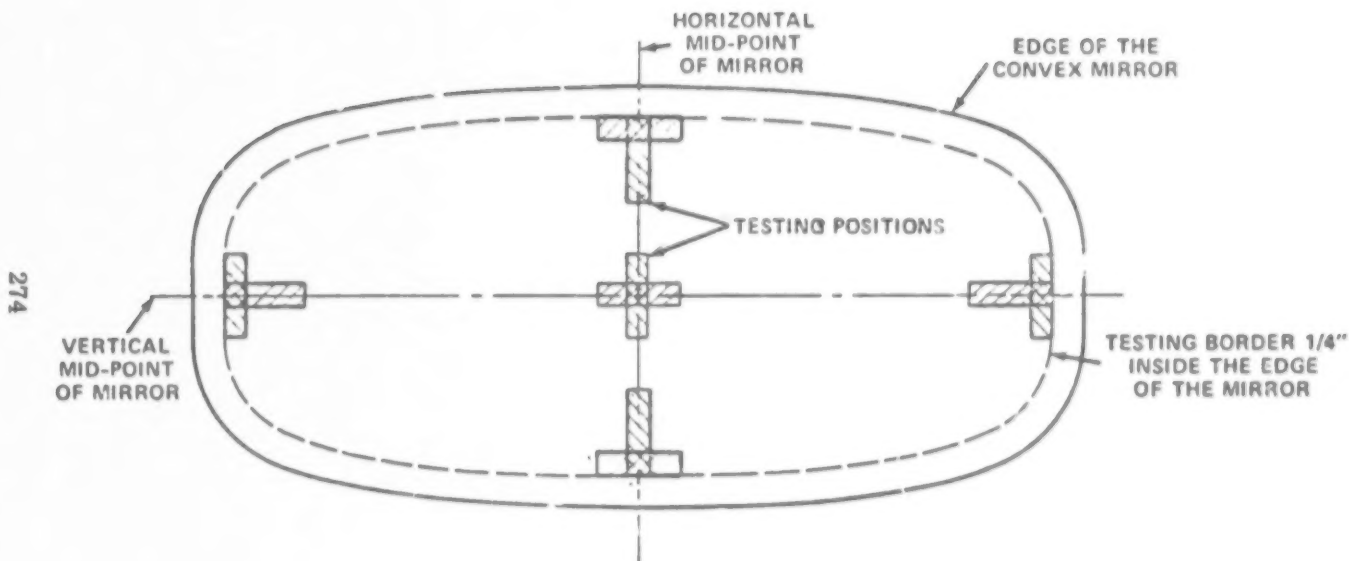


Figure 1 LOCATION OF TEN CONVEX MIRROR TESTING POSITIONS

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TABLE I—CONVERSION TABLE FROM SPHEROMETER DIAL READING TO RADIUS OF CURVATURE

Dial reading	Radius of curvature (in inches)
00330	85.2
00350	80.4
00374	75.2
00402	70.0
00416	67.6
00432	65.1
00450	62.5
00466	60.1
00476	58.1
00484	56.1
00492	54.9
00502	53.9
00512	52.5
00522	51.7
00536	50.8
00544	49.7
00554	48.5
00566	47.5
00580	46.4
00582	45.2
00606	44.2
00622	43.0
00636	42.1
00654	41.0
00666	40.5
00686	39.1
00694	38.0
00720	37.0
00740	36.1
00760	35.1
00780	34.2
00802	33.1
00822	32.0
00850	31.0
00878	30.5
00906	30.0
00922	29.3
00938	28.7
00960	28.0
00980	27.5
01004	27.0
01022	26.5
01042	26.0
01060	25.3
01080	24.9
01110	24.0
01130	23.4
01170	22.7
01200	22.0
01240	21.5
01260	20.7
01310	20.1
01360	19.7
01400	19.0
01430	18.3
01490	17.9
01540	17.5
01570	17.1
01510	16.6
01650	16.1
01700	15.6
01750	15.1
01800	
01860	

TABLE I—CONVERSION TABLE FROM SPHEROMETER DIAL READING TO RADIUS OF CURVATURE—Continued

Dial reading	Radius of curvature (in inches)
01910	14.7
01980	14.2
02040	13.8
02100	13.4
02160	13.0
02250	12.5
02340	12.0
02450	11.5
02560	11.0
02680	10.5
02810	10.0
02960	9.5
03130	9.0
03310	8.5

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); delegations of authority at 49 CFR 1.50 and 501.7)

[41 FR 36025, Aug. 26, 1976, as amended at 41 FR 56813, Dec. 30, 1976; 47 FR 38700, Sept. 2, 1982; 48 FR 38844, Aug. 26, 1983; 48 FR 40262, Sept. 6, 1983]

§ 571.112 Standard No. 112; Headlamp concealment devices.

S1. Scope. This standard specifies requirements for headlamp concealment devices.

S2. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, buses, and motorcycles.

S3. Definitions.

"Fully opened" means the position of the headlamp concealment device in which the headlamp is in the design open operating position.

"Headlamp concealment device" means a device, with its operating system and components, that provides concealment of the headlamp when it is not in use, including a movable headlamp cover and a headlamp that displaces for concealment purposes.

"Power" means any source of energy that operates the headlamp concealment device.

S4. Requirements.

S4.1 While the headlamp is illuminated, its fully opened headlamp concealment device shall remain fully opened whenever either or both of the following occur—

(a) Any loss of power to or within the headlamp concealment device;

(b) Any disconnection, restriction, short-circuit, circuit time delay, or other similar malfunction in any wiring, tubing, hose, solenoid or other component that controls or conducts power for operating the concealment device.

S4.2 Whenever any malfunction occurs in a component that controls or conducts power for the actuation of the concealment device, each closed headlamp concealment device shall be capable of being fully opened—

(a) By automatic means;

(b) By actuation of a switch, lever or other similar mechanism; or

(c) By other means not requiring the use of any tools.

Thereafter, the headlamp concealment device must remain fully opened until intentionally closed.

S4.3 Except for cases of malfunction covered by S4.2, each headlamp concealment device shall be capable of being fully opened and the headlamps illuminated by actuation of a single switch, lever, or similar mechanism, including a mechanism that is automatically actuated by a change in ambient light conditions.

S4.4 Each headlamp concealment device shall be installed so that the headlamp may be mounted, aimed, and adjusted without removing any component of the device, other than components of the headlamp assembly.

S4.5 After December 31, 1969, the headlamp beam of headlamps that illuminate during opening and closing of the headlamp concealment device may not project to the left of or above the position of the beam when the device is fully opened.

S4.6 Except for cases of malfunction covered by S4.2, after December 31, 1969, each headlamp concealment device shall, within an ambient temperature range of -20° to $+120^{\circ}$ F., be capable of being fully opened in not more than 3 seconds after actuation of the mechanism described in S4.3.

§ 571.113 Standard No. 113; Hood latch system.

S1. *Purpose and scope.* This standard establishes the requirement for

providing a hood latch system or hood latch systems.

S2. *Application.* This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses.

S3. *Definitions.* "Hood" means any exterior movable body panel forward of the windshield that is used to cover an engine, luggage, storage, or battery compartment.

S4. *Requirements.*

S4.1 Each hood must be provided with a hood latch system.

S4.2 A front opening hood which, in any open position, partially or completely obstructs a driver's forward view through the windshield must be provided with a second latch position on the hood latch system or with a second hood latch system.

§ 571.114 Standard No. 114; Theft protection.

S1. *Purpose and Scope.* This standard specifies requirements for theft protection to reduce the incidence of accidents resulting from unauthorized use.

S2. *Application.* This standard applies to passenger cars, and to trucks and multipurpose passenger vehicles having a GVWR of 10,000 pounds or less. However, it does not apply to walk-in van-type vehicles.

S3. *Definitions.*

"Combination" means one of the specifically planned and constructed variations of a locking system which, when properly actuated, permits operation of the locking system.

"Key" includes any other device designed and constructed to provide a method for operating a locking system which is designed and constructed to be operated by that device.

"Vehicle type" refers to "passenger car," "truck," or "multipurpose passenger vehicle," as those terms are defined in 49 CFR 571.3.

S4. *Requirements.*

S4.1. Each truck and multipurpose passenger vehicle having a GVWR of 10,000 pounds or less manufactured on or after September 1, 1983 and each passenger car shall meet the requirements of S4.2, S4.3, S4.4, and S4.5. However, open-body type vehicles that are manufactured for operation with-

out doors and that either have no doors or have doors that are designed to be easily attached to and removed from the vehicle by the vehicle owner are not required to comply with S4.5.

S4.2. Each vehicle shall have a key-locking system that, whenever the key is removed, will prevent—

(a) Normal activation of the vehicle's engine or other main source of motive power; and

(b) Either steering or forward self-mobility of the vehicle, or both.

S4.3. The prime means for deactivating the vehicle's engine or other main source of motive power shall not activate the deterrent required by S4.2(b).

S4.4. For each vehicle type manufactured by a manufacturer, the number of different combinations of the key-locking systems required by S4.2 shall be at least 1,000, or a number equal to the number of vehicles of that type manufactured by such manufacturer, whichever is less. The same combinations may be used for more than one vehicle type.

S4.5. A warning to the driver shall be activated whenever the key required by S4.2 has been left in the locking system and the driver's door is opened. The warning to the driver need not operate—

(a) After the key has been manually withdrawn to a position from which it may not be turned;

(b) When the key-locking system is in the "on" or "start" position; or

(c) After the key has been inserted in the locking system and before it has been turned.

[46 FR 32253, June 22, 1981]

§ 571.115 Standard No. 115: Vehicle identification number—basic requirements.

S1. Purpose and scope.

This standard specifies general physical requirements for a vehicle identification number (VIN) and its installation to simplify vehicle information retrieval and to reduce the incidence of accidents by increasing the accuracy and efficiency of vehicle recall campaigns.

S2. Application.

This standard applies to passenger cars, multipurpose passenger vehicles, trucks, buses, trailers (including trailer kits), incomplete vehicles and motor-

cycles. Vehicles imported into the United States under 19 CFR 12.80(b)(1)(iii), other than by a corporation which was responsible for the assembly of that vehicle or a subsidiary of such a corporation, are exempt from the requirements of S4.2, S4.3, and S4.7 of this standard.

S3. Definitions.

"Check digit" means a single number or the letter X used to verify the accuracy of the transcription of the vehicle identification number.

"Incomplete vehicle" means an assemblage consisting, as a minimum, of frame and chassis structure, power train, steering system, suspension system, and braking system, to the extent that those systems are to be part of the completed vehicle, that requires further manufacturing operations, other than the addition of readily attachable components, such as mirrors or tire and rim assemblies, or minor finishing operations such as painting, to become a completed vehicle.

"Trailer kit" means a trailer which is fabricated and delivered in complete but unassembled form and which is designed to be assembled without special machinery or tools.

"Vehicle identification number" means a series of arabic numbers and roman letters which is assigned to a motor vehicle for identification purposes.

S4. Requirements.

S4.1 Each vehicle manufactured in one stage shall have a VIN that is assigned by the manufacturer. Each vehicle manufactured in more than one stage shall have a VIN assigned by the incomplete vehicle manufacturer. Vehicle alterers, as specified in 49 CFR 567.7, shall utilize the VIN assigned by the original manufacturer of the vehicle.

S4.2 Each VIN shall consist of seventeen (17) characters.

S4.3 A check digit shall be part of each VIN. The check digit shall appear in position nine (9) of the VIN on the vehicle and on any transfer documents containing the VIN and prepared by the manufacturer to be given to the first owner for purposes other than resale.

S4.4 The VIN's of any two vehicles manufactured within a 30-year period shall not be identical.

S4.5 The VIN of each vehicle shall appear clearly and indelibly upon either a part of the vehicle other than the glazing that is not designed to be removed except for repair or upon a separate plate or label which is permanently affixed to such a part.

S4.6 The VIN for passenger cars, multipurpose passenger vehicles, and trucks of 10,000 pounds or less GVWR shall be located inside the passenger compartment. It shall be readable, without moving any part of the vehicle, through the vehicle glazing under daylight lighting conditions by an observer having 20/20 vision (Snellen) whose eye-point is located outside the vehicle adjacent to the left windshield pillar. Each character in the VIN subject to this paragraph shall have a minimum height of 4 mm.

S4.7 Each character in each VIN shall be one of the Arabic or Roman letters set forth in Table 1.

TABLE 1

Numbers
1234567890
Letters
ABCDEFGHIJKLMNPRSTUVWXYZ

All spaces provided for in the VIN must be occupied by a character specified in Table 1.

S4.8 The type face utilized for each VIN shall consist of capital, sans-serif characters.

[48 FR 22571, May 19, 1983; 50 FR 4222, Jan. 30, 1985]

§ 571.116 Standard No. 116: Motor vehicle brake fluids.

S1. Scope. This standard specifies requirements for fluids for use in hydraulic brake systems of motor vehicles, containers for these fluids, and labeling of the containers.

S2. Purpose. The purpose of this standard is to reduce failures in the hydraulic braking systems of motor vehicles which may occur because of the manufacture or use of improper or contaminated fluid.

S3. Application. This standard applies to all fluid for use in hydraulic brake systems of motor vehicles. In addition, S5.3 applies to passenger cars, multipurpose passenger vehicles, trucks, buses, trailers, and motorcycles.

S4. Definitions.

"Blister" means a cavity or sac on the surface of a brake cup.

"Brake fluid" means a liquid designed for use in a motor vehicle hydraulic brake system in which it will contact elastomeric components made of styrene and butadiene rubber (SBR), ethylene and propylene rubber (EPR), polychloroprene (CR) brake hose inner tube stock or natural rubber (NR).

"Chipping" means a condition in which small pieces are missing from the outer surface of a brake cup.

"Duplicate samples" means two samples of brake fluid taken from a single packaged lot and tested simultaneously.

"Hydraulic system mineral oil" means a mineral-oil-based fluid designed for use in motor vehicle hydraulic brake systems in which the fluid is not in contact with components made of SBR, EPR or NR."

"Packager" means any person who fills containers with brake fluid that are subsequently distributed for retail sale.

"Packaged lot" is that quantity of brake fluid shipped by the manufacturer to the packager in a single container, or that quantity of brake fluid manufactured by a single plant run of 24 hours or less, through the same processing equipment and with no change in ingredients.

"Scuffing" means a visible erosion of a portion of the outer surface of a brake cup.

"Sloughing" means degradation of a brake cup as evidenced by the presence of carbon black loosely held on the brake cup surface, such that a visible black streak is produced when the cup, with a 500±10 gram deadweight on it, is drawn base down over a sheet of white bond paper placed on a firm flat surface.

"Stickiness" means a condition on the surface of a brake cup such that fibers will be pulled from a wad of

U.S.P. absorbent cotton when it is drawn across the surface.

S5. Requirements. This section specifies performance requirements for DOT 3, DOT 4 and DOT 5 brake fluids, requirements for brake fluid certification, and for container sealing, labeling and color coding for both brake fluids and hydraulic system mineral oils. Where a range of tolerances is specified, the brake fluid must be capable of meeting the requirements at all points within the range.

S5.1 Brake fluid. When tested in accordance with S6, brake fluids shall meet the following requirements:

S5.1.1 Equilibrium reflux boiling point (ERBP). When brake fluid is tested according to S6.1, the ERBP shall not be less than the following value for the grade indicated:

- (a) DOT 3: 205° C. (401° F.).
- (b) DOT 4: 230° C. (446° F.).
- (c) DOT 5: 260° C. (500° F.).

S5.1.2 Wet ERBP. When brake fluid is tested according to S6.2, the wet ERBP shall not be less than the following value for the grade indicated:

- (a) DOT 3: 140° C. (284° F.).
- (b) DOT 4: 155° C. (311° F.).
- (c) DOT 5: 180° C. (356° F.).

S5.1.3 Kinematic viscosities. When brake fluid is tested according to S6.3, the kinematic viscosities in centistokes (cSt.) at stated temperatures shall be neither less than 1.5 cSt. at 100° C. (212° F.) nor more than the following maximum value for the grade indicated:

- (a) DOT 3: 1,500 cSt. at minus 40° C. (minus 40° F.).
- (b) DOT 4: 1,800 cSt. at minus 40° C. (minus 40° F.).
- (c) DOT 5: 900 cSt. at minus 40° C. (minus 40° F.).

S5.1.4 pH value. When DOT 3 or DOT 4 brake fluid is tested according to S6.4, the pH value shall not be less than 7.0 nor more than 11.5.

S5.1.5 Brake fluid stability.

S5.1.5.1 High-temperature stability. When brake fluid is tested according to S6.5.3 the ERBP shall not change by more than 3° C. (5.4° F.) plus 0.05° for each degree that the ERBP of the fluid exceeds 225° C. (437° F.).

S5.1.5.2 Chemical stability. When DOT 3 or DOT 4 brake fluid is tested according to S6.5.4, the change in tem-

perature of the refluxing fluid mixture shall not exceed 3.0° C (5.4° F) plus 0.05° for each degree that the ERBP of the fluid exceeds 225° C (437° F).

S5.1.6 Corrosion. When brake fluid is tested according to S6.6—

(a) The metal test strips shall not show weight changes exceeding the limits stated in Table I.

TABLE I

Test strip material	Maximum permissible weight change, mg./sq. cm. of surface
Steel, tinned iron, cast iron	0.2
Aluminum	1
Brass, copper	4

(b) Excluding the area of contact (13 ± 1 mm. ($\frac{1}{2} \pm \frac{1}{32}$ inch) measured from the bolt hole end of the test strip), the metal test strips shall not show pitting or etching to an extent discernible without magnification;

(c) The water-wet brake fluid at the end of the test shall show no jelling at 23 ± 5 ° C (73.4 ± 9 ° F);

(d) No crystalline deposit shall form and adhere to either the glass jar walls or the surface of the metal strips;

(e) At the end of the test, sedimentation of the water-wet brake fluid shall not exceed 0.10 percent by volume;

(f) The pH value of water-wet DOT 3 and DOT 4 brake fluid at the end of the test shall not be less than 7.0 nor more than 11.5;

(g) The cups at the end of the test shall show no disintegration, as evidenced by blisters or sloughing;

(h) The hardness of the cup shall not decrease by more than 15 International Rubber Hardness Degrees (IRHD); and

(i) The base diameter of the cups shall not increase by more than 1.4 mm. (0.055 inch).

S5.1.7 Fluidity and appearance at low temperature. When brake fluid is tested according to S6.7, at the storage temperature and for the storage times given in Table II—

(a) The fluid shall show no sludging, sedimentation, crystallization, or stratification;

(b) Upon inversion of the sample bottle, the time required for the air bubble to travel to the top of the fluid shall not exceed the bubble flow times shown in Table II; and

(c) On warming to room temperature, the fluid shall resume the appearance and fluidity that it had before chilling.

TABLE II—FLUIDITY AND APPEARANCE AT LOW TEMPERATURES

Storage temperature	Storage time (hour)	Maximum bubble flow time (seconds)
Minus 40±2° C. (minus 40±3.6° F.)	1±0.4	10
Minus 50±2° C. (minus 58±3.6° F.)	0±0.2	35

S5.1.8 Evaporation. When brake fluid is tested according to S6.8—

(a) The loss by evaporation shall not exceed 80 percent by weight;

(b) The residue from the brake fluid after evaporation shall contain no precipitate that remains gritty or abrasive when rubbed with the fingertip; and

(c) The residue shall have a pour point below minus 5° C. (+23° F.).

S5.1.9 Water tolerance.

(a) *At low temperature.* When brake fluid is tested according to S6.9(a)—

(1) The fluid shall show no sludging, sedimentation, crystallization, or stratification;

(2) Upon inversion of the centrifuge tube, the air bubble shall travel to the top of the fluid in not more than 10 seconds;

(3) If cloudiness has developed, the wet fluid shall regain its original clarity and fluidity when warmed to room temperature; and

(b) *At 60° C. (140° F.).* When brake fluid is tested according to S6.9(b)—

(1) The fluid shall show no stratification; and

(2) Sedimentation shall not exceed 0.15 percent by volume after centrifuging.

S5.1.10 Compatibility.

(a) *At low temperature.* When brake fluid is tested according to S6.10.3(a) the test specimen shall show no sludg-

ing, sedimentation, or crystallization. In addition DOT 3 and DOT 4 fluids shall show no stratification.

(b) *At 60° C. (140° F.).* When brake fluid is tested according to S6.10.3(b)—

(1) Sedimentation shall not exceed 0.05 percent by volume after centrifuging; and

(2) DOT 3 and DOT 4 fluids shall show no stratification.

S5.1.11 Resistance to oxidation. When brake fluid is tested according to S6.11—

(a) The metal test strips outside the areas in contact with the tinfoil shall not show pitting or etching to an extent discernible without magnification;

(b) No more than a trace of gum shall be deposited on the test strips outside the areas in contact with the tinfoil;

(c) The aluminum strips shall not change in weight by more than 0.05 mg./sq. cm.; and

(d) The cast iron strips shall not change in weight by more than 0.3 mg./sq. cm.

S5.1.12 Effects on cups. When brake cups are subjected to brake fluid in accordance with S6.12 (a) and (b)—

(a) The increase in the diameter of the base of the cups shall be not less than 0.15 mm. (0.006 inch) or more than 1.40 mm. (0.055 inch);

(b) The decrease in hardness of the cups shall be not more than 10 IRHD at 70° C. (158° F.) or more than 15 IRHD at 120° C. (248° F.), and there shall be no increase in hardness of the cups; and

(c) The cups shall show no disintegration as evidenced by stickiness, blisters, or sloughing.

S5.1.13 Stroking properties. When brake fluid is tested according to S6.13—

(a) Metal parts of the test system shall show no pitting or etching to an extent discernible without magnification;

(b) The change in diameter of any cylinder or piston shall not exceed 0.13 mm. (0.005 inch);

(c) The average decrease in hardness of nine of the 10 cups tested (eight-wheel cylinder and one master cylinder primary) shall not exceed 15 IRHD. Not more than one of the nine

cups shall have a decrease in hardness greater than 17 IRHD;

(d) None of the 10 cups shall be in an unsatisfactory operating condition as evidenced by stickiness, scuffing, blisters, cracking, chipping, or other change in shape from its original appearance;

(e) None of the 10 cups shall show an increase in base diameter greater than 0.90 mm. (0.035 inch);

(f) The average lip diameter set of the 10 cups shall not be greater than 65 percent;

(g) During any period of 24,000 strokes, the volume loss of fluid shall not exceed 36 milliliters;

(h) The cylinder pistons shall not freeze or function improperly throughout the test;

(i) The total loss of fluid during the 100 strokes at the end of the test shall not exceed 36 milliliters;

(j) The fluid at the end of the test shall show no formation of gels;

(k) At the end of the test the amount of sediment shall not exceed 1.5 percent by volume; and

(l) Brake cylinders shall be free of deposits that are abrasive or that cannot be removed when rubbed moderately with a nonabrasive cloth wetted with ethanol.

S5.1.14 Fluid color. Brake fluid and hydraulic system mineral oil manufactured on or after September 1, 1978, shall be of the color indicated:

DOT 3 and DOT 4—colorless to amber.

DOT 5—purple.

Hydraulic system mineral oil—green.

S5.2 Packaging and labeling requirements for motor vehicle brake fluids.

S5.2.1 Container sealing. Each brake fluid or hydraulic system mineral oil container with a capacity of 6 fluid ounces or more shall be provided with a resealable closure that has an inner seal impervious to the packaged brake fluid. The container closure shall include a tamper-proof feature that will either be destroyed or substantially altered when the container closure is initially opened.

S5.2.2 Certification, marking, and labeling.

S5.2.2.1 Each manufacturer of a DOT grade brake fluid shall furnish to each packager, distributor, or dealer to

whom he delivers brake fluid, the following information:

(a) A serial number identifying the production lot and the date of manufacture of the brake fluid.

(b) The grade (DOT 3, DOT 4, or DOT 5) of the brake fluid.

(c) The minimum wet boiling point in Fahrenheit of the brake fluid.

(d) Certification that the brake fluid conforms to § 571.116.

S5.2.2.2 Each packager of a brake fluid shall furnish the following information clearly and indelibly marked on each brake fluid container, in any location except a removable part such as a lid.

(a) Certification that the brake fluid conforms to § 571.116.

(b) The name of the packager of the brake fluid, which may be in code form.

(c) The name and complete mailing address of the distributor.

(d) A serial number identifying the packaged lot and date of packaging.

(e) Designation of the contents as "DOT—MOTOR VEHICLE BRAKE FLUID" (Fill in "3", "4", or "5" as applicable).

(f) The minimum wet boiling point in Fahrenheit of the DOT brake fluid in the container.

(g) The following safety warnings in capital and lower case letters as indicated: * * *

1. FOLLOW VEHICLE MANUFACTURER'S RECOMMENDATIONS WHEN ADDING BRAKE FLUID.

2. KEEP BRAKE FLUID CLEAN AND DRY. Contamination with dirt, water, petroleum products or other materials may result in brake failure or costly repairs.

3. STORE BRAKE FLUID ONLY IN ITS ORIGINAL CONTAINER. KEEP CONTAINER CLEAN AND TIGHTLY CLOSED TO PREVENT ABSORPTION OF MOISTURE. (THE LAST FIVE WORDS OF THE SECOND SENTENCE MAY BE OMITTED FROM THE LABELING ON DOT 5 CONTAINERS.)

4. CAUTION: DO NOT REFILL CONTAINER, AND DO NOT USE FOR OTHER LIQUIDS. (Not required for containers with a capacity in excess of 5 gallons.)

S5.2.2.3 Each packager of hydraulic system mineral oil shall furnish the following information clearly and indelibly marked on each container in any location except a removable part such as a lid:

(a) The name of the packager of the hydraulic system mineral oil, which may be in code form.

(b) The name and complete mailing address of the distributor.

(c) A serial number identifying the packaged lot and date of packaging.

(d) Designation of the contents as "HYDRAULIC SYSTEM MINERAL OIL" in capital letters at least $\frac{1}{4}$ of an inch high.

(e) The following safety warnings in capital and lower case letters as indicated:

(1) **FOLLOW VEHICLE MANUFACTURER'S RECOMMENDATIONS WHEN ADDING HYDRAULIC SYSTEM MINERAL OIL.**

(2) **Hydraulic System Mineral Oil is NOT COMPATIBLE** with the rubber components of brake systems designed for use with DOT brake fluids.

(3) **KEEP HYDRAULIC SYSTEM MINERAL OIL CLEAN.** Contamination with dust or other materials may result in brake failure or costly repair.

(4) **CAUTION: STORE HYDRAULIC SYSTEM MINERAL OIL ONLY IN ITS ORIGINAL CONTAINER. KEEP CONTAINER CLEAN AND TIGHTLY CLOSED. DO NOT REFILL CONTAINER OR USE OTHER LIQUIDS.** (The last sentence is not required for containers with a capacity in excess of 5 gallons.)

S5.2.2.4 If a container for brake fluid or hydraulic system mineral oil is not normally visible but designed to be protected by an outer container or carton during use, the outer container or carton rather than the inner container shall meet the labeling requirements of S5.2.2.2 or S5.2.2.3, as appropriate.

S5.3 Motor vehicle requirement. Each passenger car, multipurpose passenger vehicle, truck, bus, trailer, and

motorcycle that has a hydraulic brake system shall be equipped with fluid that has been manufactured and packaged in conformity with the requirements of this standard.

S6. Test procedures.

S6.1 Equilibrium reflux boiling point. Determine the ERBP of a brake fluid by running duplicate samples according to the following procedure and averaging the results.

S6.1.1 Summary of procedure. Sixty milliliters (ml.) of brake fluid are boiled under specified equilibrium conditions (reflux) at atmospheric pressure in a 100-ml. flask. The average temperature of the boiling fluid at the end of the reflux period, corrected for variations in barometric pressure if necessary, is the ERBP.

S6.1.2 Apparatus. (See Figure 1) The test apparatus shall consist of—

(a) **Flask.** (See Figure 2) A 100-ml. round-bottom, short-neck heat-resistant glass flask having a neck with a $\frac{1}{8}$ " standard taper, female ground-glass joint and a side-entering tube, with an outside diameter of 10 millimeters (mm.), which centers the thermometer bulb in the flask 6.5 mm. from the bottom;

(b) **Condenser.** A water-cooled, reflux, glass-tube type, condenser having a jacket 300 mm. in length, the bottom end of which has a $\frac{1}{8}$ " standard-taper, drip-tip, male ground-glass joint;

(c) **Boiling stones.** Three clean, unused silicon carbide grains (approximately 2 mm. (0.08 inch) in diameter, grit No. 8);

(d) **Thermometer.** Standardized calibrated partial immersion (76 mm.), solid stem, thermometers conforming to the requirements for an ASTM 3C or 2F, and an ASTM 3C or 3F thermometer; and

(e) **Heat source.** Variable autotransformer-controlled heating mantle designed to fit the flask, or an electric heater with rheostat heat control.

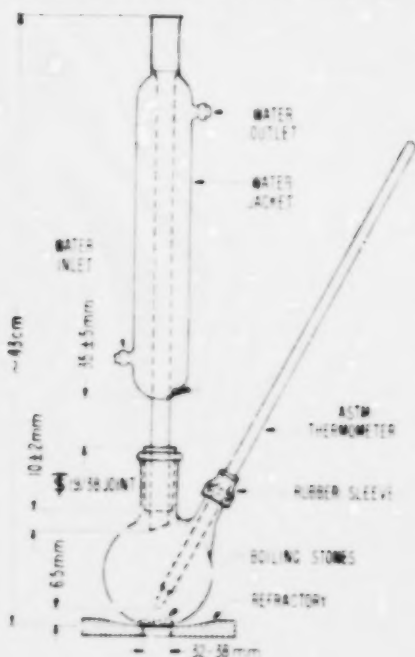


FIG. 1 BOILING POINT TEST APPARATUS

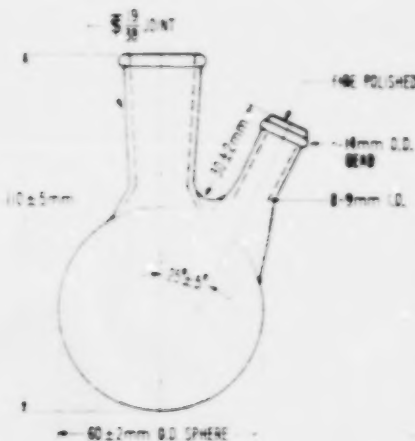


FIG. 2 DETAIL OF 100 ML SHORT-NECK FLASK

S6.1.3 Preparation of apparatus.

(a) Thoroughly clean and dry all glassware.

(b) Insert thermometer through the side tube until the tip of the bulb is 6.5 mm. ($\frac{1}{4}$ inch) from the bottom center of the flask. Seal with a short piece of natural rubber, EPDM, SBR, or butyl tubing.

(c) Place 60 ± 1 ml. of brake fluid and the silicon carbide grains into the flask.

(d) Attach the flask to the condenser. When using a heating mantle, place the mantle under the flask and support it with a ring-clamp and laboratory-type stand, holding the entire assembly in place by a clamp. When using a rheostat-controlled heater, center a standard porcelain or hard asbestos refractory, having a diameter opening 32 to 38 mm., over the heating element and mount the flask so that direct heat is applied only through the opening in the refractory. Place the assembly in an area free from drafts or other types of sudden temperature changes. Connect the cooling water inlet and outlet tubes to the condenser. Turn on the cooling water. The water supply temperature shall not exceed 28°C . (82.4°F .) and the temperature rise through the condenser shall not exceed 2°C . (3.6°F .).

S6.1.4 Procedure. Apply heat to the flask so that within 10 ± 2 minutes the fluid is refluxing in excess of 1 drop per second. The reflux rate shall not exceed 5 drops per second at any time. Immediately adjust the heating rate to obtain an equilibrium reflux rate of 1 to 2 drops per second over the next 5 ± 2 minutes. Maintain this rate for an additional 2 minutes, taking four temperature readings at 30-second intervals. Record the average of these as the observed ERBP. If no reflux is evident when the fluid temperature reaches 260°C (500°F), discontinue heating and report ERBP as in excess of 260°C (500°F).

S6.1.5 Calculation.

(a) *Thermometer inaccuracy.* Correct the observed ERBP by applying any correction factor obtained in standardizing the thermometer.

(b) *Variation from standard barometric pressure.* Apply the factor shown in Table III to calculate the

barometric pressure correction to the ERBP.

TABLE III—CORRECTION FOR BAROMETRIC PRESSURE

Observed ERBP corrected for thermometer inaccuracy	Correction per 1 mm difference in pressure*	
	°C	(°F)
100° C (212° F) to 190° C (374° F)	0.039	(0.07)
Over 190° C (374° F)	0.04	(0.08)

*To be added in case barometric pressure is below 760 mm., to be subtracted in case barometric pressure is above 760 mm.

(c) If the two corrected observed ERBP's agree within 2° C. (4° C. for brake fluids having an ERBP over 230° C./446° F.) average the duplicate runs as the ERBP; otherwise, repeat the entire test, averaging the four corrected observed values to determine the original ERBP.

S6.2 Wet ERBP. Determine the wet ERBP of a brake fluid by running duplicate samples according to the following procedure.

S6.2.1 Summary of the procedure. A 100-ml. sample of the brake fluid is humidified under controlled conditions; 100 ml. of SAE RM-1 Compatibility Fluid is used to establish the end point for humidification. After humidification the water content and ERBP of the brake fluid are determined.

S6.2.2 Apparatus for humidification. (See Figure 3) Test apparatus shall consist of—

(a) *Glass jars.* Four SAE RM-49 corrosion test jars or equivalent screw-top, straight-sided, round glass jars each having a capacity of about 475 ml. and approximate inner dimensions of 100 mm. in height by 75 mm. in diameter, with matching lids having new, clean inserts providing water-vapor-proof seals;

(b) *Desiccator and cover.* Four bowl-form glass desiccators, 250-mm. inside diameter, having matching tubulated covers fitted with No. 8 rubber stoppers; and

(c) *Desiccator plate.* Four 230-mm. diameter, perforated porcelain desicca-

tor plates, without feet, glazed on one side.

S6.2.3 Reagents and materials.

(a) Ammonium sulfate ($\text{NH}_4)_2\text{SO}_4$. Reagent or A.C.S. grade.

(b) Distilled water, see S7.1.

(c) SAE RM-1 compatibility fluid.

S6.2.4 Preparation of apparatus. Lubricate the ground-glass joint of the desiccator. Load each desiccator with 450 ± 25 grams of the ammonium sulfate and add 125 ± 10 ml. of distilled water. The surface of the salt slurry shall lie within 45 ± 7 mm. of the top surface of the desiccator plate. Place the desiccators in an area with temperature controlled at $23 \pm 2^\circ \text{C}$. ($73.4 \pm 3.6^\circ \text{F}$.) throughout the humidification procedure. Load the desiccators with the slurry and allow to condition with the covers on and stoppers in place at least 12 hours before use. Use a fresh charge of salt slurry for each test.

S6.2.5 Procedure. Pour 100 ± 1 ml. of the brake fluid into a corrosion test jar. Promptly place the jar into a desiccator. Prepare duplicate test sample, and two duplicate specimens of the SAE RM-1 compatibility fluid. Adjust water content of the SAE RM-1 fluid to 0.50 ± 0.05 percent by weight at the start of the test in accordance with S7.2. At intervals remove the rubber stopper in the top of each desiccator containing SAE RM-1 fluid. Using a long needled hypodermic syringe, take a sample of not more than 2 ml. from each jar and determine its water content. Remove no more than 10 ml. of fluid from each SAE RM-1 sample during the humidification procedure. When the water content of the SAE fluid reaches 3.50 ± 0.05 percent by weight (average of the duplicates), remove the two test fluid specimens from their desiccators and promptly cap each jar tightly. Measure the water contents of the test fluid specimens in accordance with S7.2 and determine their ERBP's in accordance with S6.1 through S6.1.5. If the two ERBP's agree within 4°C . (8°F .), average them to determine the wet ERBP; otherwise repeat and average the four individual ERBP's as the wet ERBP of the brake fluid.

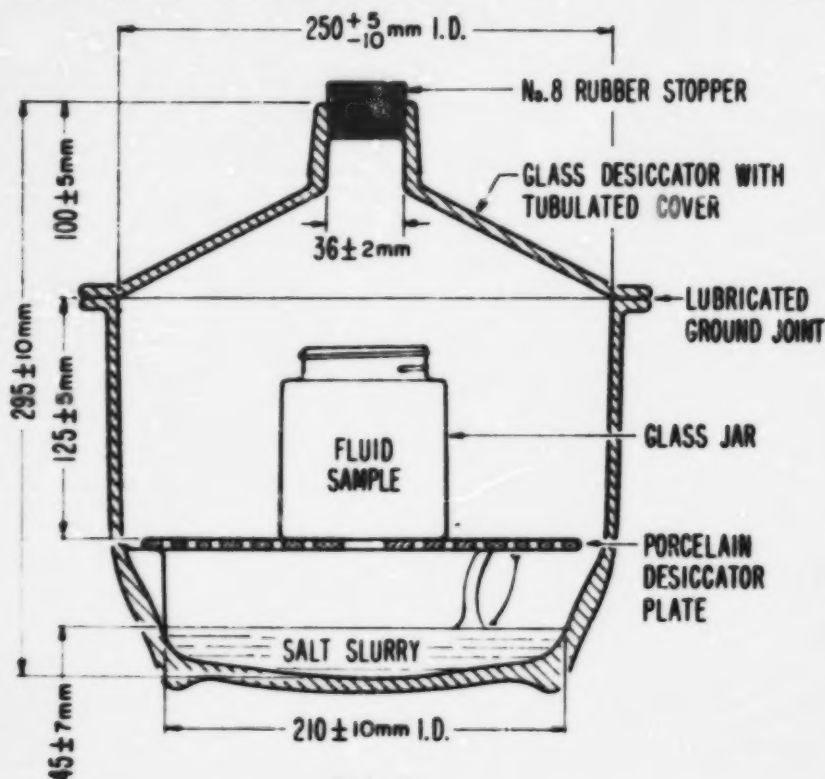


FIG. 3
HUMIDIFICATION APPARATUS

86.3 Kinematic viscosity. Determine the kinematic viscosity of a brake fluid in centistokes (cSt.) by the following procedure. Run duplicate samples at each of the specified temperatures, making two timed runs on each sample.

86.3.1 Summary of the procedure. The time is measured for a fixed volume of the brake fluid to flow through a calibrated glass capillary viscometer under an accurately reproducible head and at a closely controlled temperature. The kinematic viscosity is then calculated from the

measured flow time and the calibration constant of the viscometer.

86.3.2 Apparatus.

(a) *Viscometers.* Calibrated glass capillary-type viscometers, ASTM D2515-66, "Standard Specification for Kinematic Glass Viscometers," measuring viscosity within the precision limits of 86.4.7. Use suspended level viscometers for viscosity measurements at low temperatures. Use Cannon-Fenske Routine or other modified Ostwald viscometers at ambient temperatures and above.

(b) *Viscometer holders and frames.* Mount a viscometer in the constant-temperature bath so that the mounting tube is held within 1" of the vertical.

(c) *Viscometer bath.* A transparent liquid bath of sufficient depth such that at no time during the measurement will any portion of the sample in the viscometer be less than 2 cm. below the surface or less than 2 cm. above the bottom. The bath shall be cylindrical in shape, with turbulent agitation sufficient to meet the temperature control requirements. For measurements within 15° to 100° C. (60° to 212° F.) the temperature of the bath medium shall not vary by more

than 0.01° C. (0.02° F.) over the length of the viscometers, or between the positions of the viscometers, or at the locations of the thermometers. Outside this range, the variation shall not exceed 0.03° C. (0.05° F.).

(d) *Thermometers.* Liquid-in-Glass Kinematic Viscosity Test Thermometers, covering the range of test temperatures indicated in Table IV and conforming to ASTM E1-68, "Specifications for ASTM Thermometers," and in the IP requirements for IP Standard Thermometers. Standardize before use (see § 5.3.3(b)). Use two standardized thermometers in the bath.

TABLE IV.—KINEMATIC VISCOSITY THERMOMETERS

Temperature range		For tests at		Subdivisions		Thermometer number	
°C	°F	°C	°F	°C	°F	ASTM	IP
Minus 55.3 to minus 52.5	Minus 67.5 to minus 62.5	Minus 55	Minus 67	0.05	0.1	74 F	69 F or C
Minus 41.4 to minus 38.6	Minus 42.5 to minus 37.5	Minus 40	Minus 40	0.05	0.1	73 F	68 F or C
98.6 to 101.4	207.5 to 212.5	100	212	0.05	0.1	30 F	32 F or C

(e) *Timing device.* Stop watch or other timing device graduated in divisions representing not more than 0.2 second, with an accuracy of at least ± 0.05 percent when tested over intervals of 15 minutes. Electrical timing devices may be used when the current frequency is controlled to an accuracy of 0.01 percent or better.

§ 5.3.3 Standardization.

(a) *Viscometers.* Use viscometers calibrated in accordance with Appendix 1 of ASTM D445-66, "Viscosity of Transparent and Opaque Liquids (Kinematic and Dynamic Viscosities)." The calibration constant, C , is dependent upon the gravitational acceleration at the place of calibration. This must, therefore, be supplied by the standardization laboratory together with the instrument constant. Where the acceleration of gravity, g , in the two locations differs by more than 0.1 percent, correct the calibration constant as follows:

$$C_2 = (g_1/g_2) \times C_1$$

where the subscripts 1 and 2 indicate respectively the standardization laboratory and the testing laboratory.

(b) *Thermometers.* Check liquid-in-glass thermometers to the nearest 0.01° C. (0.02° F.) by direct comparison with a standardized thermometer. Kinematic Viscosity Test Thermometers shall be standardized at "total immersion." The ice point of standardized thermometers shall be determined before use and the official corrections shall be adjusted to conform to the changes in ice points. (See ASTM E77-68, "Verification and Calibration of Liquid-in-Glass Thermometers.")

(c) *Timers.* Time signals are broadcast by the National Bureau of Standards, Station WWV, Washington, D.C. at 2.5, 5, 10, 15, 20, 25, 30, and 35 Mc/sec (MHz). Time signals are also broadcast by Station CHU from Ottawa, Canada, at 3.330, 7.335, and 14.670 Mc/sec, and Station MSF at Rugby, United Kingdom, at 2.5, 5, and 10 Mc/sec.

§ 5.3.4 Procedure.

(a) Set and maintain the bath at the appropriate test temperature (see § 5.1.3) within the limits specified in § 5.3.2(c). Apply the necessary correc-

tions, if any, to all thermometer readings.

(b) Select a clean, dry, calibrated viscometer giving a flow time not less than its specified minimum, or 200 seconds, whichever is the greater.

(c) Charge the viscometer in the manner used when the instrument was calibrated. Do not filter or dry the brake fluid, but protect it from contamination by dirt and moisture during filling and measurements.

(1) Charge the suspended level viscometers by tilting about 30° from the vertical and pouring sufficient brake fluid through the fill tube into the lower reservoir so that when the viscometer is returned to vertical position the meniscus is between the fill marks. For measurements below 0° C. (32° F.), before placing the filled viscometer into the constant temperature bath, draw the sample into the working capillary and timing bulb and insert small rubber stoppers to suspend the fluid in this position, to prevent accumulation of water condensate on the walls of the critical portions of the viscometer. Alternatively, fit loosely packed drying tubes into the open ends of the viscometer to prevent water condensation, but do not restrict the flow of the sample under test by the pressures created in the instrument.

(2) If a Cannon-Fenske Routine viscometer is used, charge by inverting and immersing the smaller arm into the brake fluid and applying vacuum to the larger arm. Fill the tube to the upper timing mark, and return the viscometer to an upright position.

(d) Mount the viscometer in the bath in a true vertical position (see S6.3.2(b)).

(e) The viscometer shall remain in the bath until it reaches the test temperature.

(f) At temperatures below 0° C. (32° F.) conduct an untimed preliminary run by allowing the brake fluid to drain through the capillary into the lower reservoir after the test temperature has been established.

(g) Adjust the head level of the brake fluid to a position in the capillary arm about 5 mm. above the first timing mark.

(h) With brake fluid flowing freely measure to within 0.2 second the time required for the meniscus to pass from the first timing mark to the second. If this flow time is less than the minimum specified for the viscometer, or 200 seconds, whichever is greater, repeat using a viscometer with a capillary of smaller diameter.

(i) Repeat S6.3.4 (g) and (h). If the two timed runs do not agree within 0.2 percent, reject and repeat using a fresh sample of brake fluid.

S6.3.5 *Cleaning the viscometers.*

(a) Periodically clean the instrument with chromic acid to remove organic deposits. Rinse thoroughly with distilled water and acetone, and dry with clean dry air.

(b) Between successive samples rinse the viscometer with ethanol (isopropanol when testing DOT 5 fluids) followed by an acetone or ether rinse. Pass a slow stream of filtered dry air through the viscometer until the last trace of solvent is removed.

S6.3.6 *Calculation.*

(a) The following viscometers have a fixed volume charged at ambient temperature, and as a consequence C varies with test temperature: Cannon-Fenske Routine, Pinkevitch, Cannon-Manning Semi-Micro, and Cannon Fenske Opaque. To calculate C at test temperatures other than the calibration temperature for these viscometers, see ASTM D2515-66, "Kinematic Glass Viscometers" or follow instructions given on the manufacturer's certificate of calibration.

(b) Average the four timed runs on the duplicate samples to determine the kinematic viscosities.

S6.3.7 *Precision (at 95 percent confidence level).*

(a) *Repeatability.* If results on duplicate samples by the same operator differ by more than 1 percent of their mean, repeat the tests.

S6.4 *pH value.* Determine the pH value of a brake fluid by running one sample according to the following procedure.

S6.4.1 *Summary of the procedure.* Brake fluid is diluted with an equal volume of an ethanol-water solution. The pH of the resultant mixture is measured with a prescribed pH meter assembly at 23° C. (73.4° F.).

S6.4.2 Apparatus. The pH assembly consists of the pH meter, glass electrode, and calomel electrode, as specified in Appendices A1.1, A1.2, and A1.3 of ASTM D 1121-67, "Standard Method of Test for Reserve Alkalinity of Engine Antifreezes and Antirusts." The glass electrode is a full range type (pH 0-14), with low sodium error.

S6.4.3 Reagents. Reagent grade chemicals conforming to the specifications of the Committee on Analytical Reagents of the American Chemical Society.

(a) *Distilled water.* Distilled water (S7.1) shall be boiled for about 15 minutes to remove carbon dioxide, and protected with a soda-lime tube or its equivalent while cooling and in storage. (Take precautions to prevent contamination by the materials used for protection against carbon dioxide.) The pH of the boiled distilled water shall be between 6.2 and 7.2 at 25° C. (77° F.).

(b) *Standard buffer solutions.* Prepare buffer solutions for calibrating the pH meter and electrode pair from salts sold specifically for use, either singly or in combination, as pH standards. Dry salts for 1 hour at 110° C. (230° F.) before use except for borax which shall be used as the decahydrate. Store solutions with pH less than 9.5 in bottles of chemically resistant glass or polyethylene. Store the alkaline phosphate solution in a glass bottle coated inside with paraffin. Do not use a standard with an age exceeding three months.

(1) Potassium hydrogen phthalate buffer solution (0.05 M, pH=4.01 at 25° C. (77° F.)). Dissolve 10.21 g. of potassium hydrogen phthalate ($\text{KHC}_8\text{H}_4\text{O}_4$) in distilled water. Dilute to 1 liter.

(2) Neutral phosphate buffer solution (0.025 M with respect to each phosphate salt, pH=6.86 at 25° C. (77° F.)). Dissolve 3.40 g. of potassium dihydrogen phosphate (KH_2PO_4) and 3.55 g. of anhydrous disodium hydrogen phosphate (Na_2HPO_4) in distilled water.

(3) Borax buffer solution (0.01 M, pH=9.18 at 25° C. (77° F.)). Dissolve 3.81 g. of disodium tetraborate decahydrate ($\text{Na}_2\text{B}_4\text{O}_{10}\cdot 10\text{H}_2\text{O}$) in distilled

water, and dilute to 1 liter. Stopper the bottle except when actually in use.

(4) Alkaline phosphate buffer solution (0.01 M trisodium phosphate, pH=11.72 at 25° C. (77° F.)). Dissolve 1.42 g. of anhydrous disodium hydrogen phosphate (Na_2HPO_4) in 100 ml. of a 0.1 M carbonate-free solution of sodium hydroxide. Dilute to 1 liter with distilled water.

(5) Potassium chloride electrolyte. Prepare a saturated solution of potassium chloride (KCl) in distilled water.

(c) *Ethanol-water mixture.* To 80 parts by volume of ethanol (S7.3) add 20 parts by volume of distilled water. Adjust the pH of the mixture to 7 ± 0.1 using 0.1 N sodium hydroxide (NaOH) solution. If more than 4 ml. of NaOH solution per liter of mixture is required for neutralization, discard the mixture.

S6.4.4 Preparation of electrode system.

(a) *Maintenance of electrodes.* Clean the glass electrode before using by immersing in cold chromic-acid cleaning solution. Drain the calomel electrode and fill with KCl electrolyte, keeping level above that of the mixture at all times. When not in use, immerse the lower halves of the electrodes in distilled water, and do not immerse in the mixture for any appreciable period of time between determinations.

(b) *Preparation of electrodes.* Condition new glass electrodes and those that have been stored dry as recommended by the manufacturer. Before and after using, wipe the glass electrode thoroughly with a clean cloth, or a soft absorbent tissue, and rinse with distilled water. Before each pH determination, soak the prepared electrode in distilled water for at least 2 minutes. Immediately before use, remove any excess water from the tips of the electrode.

S6.4.5 Standardization of the pH assembly and testing of the electrodes.

(a) Immediately before use, standardize the pH assembly with a standard buffer solution. Then use a second standard buffer solution to check the linearity of the response of the electrodes at different pH values, and to detect a faulty glass electrode or incorrect temperature compensation. The two buffer solutions bracket the an-

anticipated pH value of the test brake fluid.

(b) Allow instrument to warm up, and adjust according to the manufacturer's instructions. Immerse the tips of the electrodes in a standard buffer solution and allow the temperature of the buffer solution and the electrodes to equalize. Set the temperature knob at the temperature of the buffer solution. Adjust the standardization or asymmetry potential control until the meter registers a scale reading, in pH units, equal to the known pH of the standardizing buffer solution.

(c) Rinse the electrodes with distilled water and remove excess water from the tips. Immerse the electrodes in a second standard buffer solution. The reading of the meter shall agree with the known pH of the second standard buffer solution within ± 0.05 unit without changing the setting of the standardization of asymmetry potential control.

(d) A faulty electrode is indicated by failure to obtain a correct value for the pH of the second standard buffer solution after the meter has been standardized with the first.

S6.4.6 Procedure. To 50 ± 1 ml. of the test brake fluid add 50 ± 1 ml. of the ethanol-water (S6.4.3(c)) and mix thoroughly. Immerse the electrodes in the mixture. Allow the system to come to equilibrium, readjust the temperature compensation if necessary, and take the pH reading.

S6.5 Fluid stability. Evaluate the heat and chemical stability of a brake fluid by the following procedure, running duplicate samples for each test and averaging the results.

S6.5.1 Summary of the procedure. The degradation of the brake fluid at elevated temperature, alone or in a mixture with a reference fluid, is evaluated by determining the change in boiling point after a period of heating under reflux conditions.

S6.5.2 Apparatus. Use the apparatus and preparation specified in S6.1.2 and S6.1.3.

S6.5.3 High temperature stability.

S6.5.3.1 Procedure.

(a) Heat a new 60 ± 1 ml. sample of the brake fluid to $185 \pm 2^\circ \text{C}$. ($365 \pm 3.6^\circ \text{F}$). Hold at this temperature for 120 ± 5 minutes. Bring to a

reflux rate in excess of 1 drop per second within 5 minutes. The reflux rate should not exceed 5 drops per second at any time. Over the next 5 ± 2 minutes adjust the heating rate to obtain an equilibrium reflux rate of 1 to 2 drops per second. Maintain this rate for an additional 2 minutes, taking four temperature readings at 30-second intervals. Average these as the observed ERBP. If no reflux is evident when the fluid temperature reaches 260°C . (500°F), discontinue heating and report ERBP as in excess of 260°C . (500°F).

S6.5.3.2 Calculation. Correct the observed ERBP for thermometer and barometric pressure factors according to S6.1.5 (a) and (b). Average the corrected ERBP's of the duplicate samples. The difference between this average and the original ERBP obtained in S6.1 is the change in ERBP of the fluid.

S6.5.4 Chemical stability.

S6.5.4.1 Materials. SAE RM-1 Compatibility Fluid, as described in Appendix A of SAE Standard J1703b, "Motor Vehicle Brake Fluid," April 1968.

S6.5.4.2 Procedure.

(a) Mix 30 ± 1 ml. of the brake fluid with 30 ± 1 ml. of SAE RM-1 Compatibility Fluid in a boiling point flask (S6.1.2(a)). Determine the initial ERBP of the mixture by applying heat to the flask so that the fluid is refluxing in 10 ± 2 minutes at a rate in excess of 1 drop per second, but not more than 5 drops per second. Note the maximum fluid temperature observed during the first minute after the fluid begins refluxing at a rate in excess of 1 drop per second. Over the next 15 ± 1 minutes, adjust and maintain the reflux rate at 1 to 2 drops per second. Maintain this rate for an additional 2 minutes, recording the average value of four temperature readings taken at 30-second intervals as the final ERBP.

(b) Thermometer and barometric corrections are not required.

S6.5.4.3 Calculation. The difference between the initial ERBP and the final average temperature is the change in temperature of the refluxing mixture. Average the results of the duplicates to the nearest 0.5°C . (1°F).

S6.6 Corrosion. Evaluate the corrosiveness of a brake fluid by running duplicate samples according to the following procedure.

S6.6.1 Summary of the procedure. Six specified metal corrosion test strips are polished, cleaned, and weighed, then assembled as described. Assembly is placed on a standard wheel cylinder cup in a corrosion test jar, immersed in the water-wet brake fluid, capped and placed in an oven at 100° C. (212° F.) for 120 hours. Upon removal and cooling, the strips, fluid, and cups are examined and tested.

S6.6.2 Equipment.

(a) **Balance.** An analytical balance having a minimum capacity of 50 grams and capable of weighing to the nearest 0.1 mg.

(b) **Desiccators.** Desiccators containing silica gel or other suitable desiccant.

(c) **Oven.** Gravity convection oven capable of maintaining the desired set point within 2° C. (3.6° F.).

(d) **Micrometer.** A machinist's micrometer 25 to 50 mm. (1 to 2 inches) capacity, or an optical comparator, capable of measuring the diameter of the SBR wheel cylinder (WC) cups to the nearest 0.02 mm. (0.001 inch.).

S6.6.3 Materials.

(a) **Corrosion test strips.** Two sets of strips from each of the metals listed in Appendix C of SAE Standard J1703b. Each strip shall be approximately 8 cm. long, 1.3 cm. wide, not more than 0.6 cm. thick, and have a surface area of 25 ± 5 sq. cm. and a hole 4 to 5 mm. (0.16 to 0.20 inch) in diameter on the centerline about 6 mm. from one end. The hole shall be clean and free from burrs. Tinned iron strips shall be unused. Other strips, if used, shall not be employed if they cannot be polished to a high finish.

(b) **SBR cups.** Two unused standard SAE SBR wheel cylinder (WC) cups, as specified in S7.6.

(c) **Corrosion test jars and lids.** Two screw-top straight-sided round glass jars, each having a capacity of approximately 475 ml. and inner dimensions of approximately 100 mm. in height and 75 mm. in diameter, and a tinned steel lid (no insert or organic coating) vented with a hole 0.8 ± 0.1

mm. (0.031 ± 0.004 inch) in diameter (No. 68 drill).

(d) **Machine screws and nuts.** Clean, rust and oil-free, uncoated mild steel round or fillister head machine screws, size 6 or 8-32 UNC-Class 2A, five-eighths or three-fourths inch long (or equivalent metric sizes), and matching uncoated nuts.

(e) **Supplies for polishing strips.** Waterproof silicon carbide paper, grit No. 320 A; grade 00 steel wool, lint-free polishing cloth.

(f) **Distilled water** as specified in S7.1.

(g) **Ethanol** as specified in S7.3.

(h) **Isopropanol** as specified in S7.7.

S6.6.4 Preparation.

(a) **Corrosion test strips.** Except for the tinned iron strips, abrade corrosion test strips on all surface areas with silicon carbide paper wet with ethanol (isopropanol when testing DOT 5 fluids) until all surface scratches, cuts and pits are removed. Use a new piece of paper for each different type of metal. Polish the strips with the 00 grade steel wool. Wash all strips, including the tinned iron and the assembly hardware, with ethanol (isopropanol when testing DOT 5 fluids); dry the strips and assembly hardware with a clean lint free cloth or use filtered compressed air and place the strips and hardware in a desiccator containing silica gel or other suitable desiccant and maintained at 23 ± 5 ° C. (73.4 ± 9 ° F.), for at least 1 hour. Handle the strips with forceps after polishing. Weigh and record the weight of each strip to the nearest 0.1 mg. Assemble the strips on a clean dry machine screw, with matching plain nut, in the order of tinned iron, steel, aluminum, cast iron, brass, and copper. Bend the strips, other than the cast iron, so that there is a separation of $3 \pm \frac{1}{2}$ mm. ($\frac{1}{8} \pm \frac{1}{16}$ inch) between adjacent strips for a distance of about 5 cm. (2 inches) from the free end of the strips. (See Figure 4.) Tighten the screw on each test strip assembly so that the strips are in electrolytic contact, and can be lifted by either of the outer strips (tinned iron or copper) without any of the strips moving relative to the others when held horizontally. Immerse the strip assemblies in 90 percent ethyl alcohol.

Dry with dried filtered compressed air, then desiccate at least 1 hour before use.

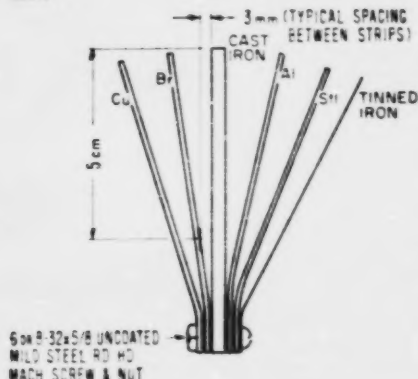


FIG. 4. CORROSION STRIP ASSEMBLY

(b) **SBR WC cups.** Measure the base diameters of the two standard SBR cups, using an optical comparator or micrometer, to the nearest 0.02 mm. (0.001 inch) along the centerline of the SAE and rubber-type identifications and at right angles to this centerline. Take the measurements at least 0.4 mm. (0.015 inch) above the bottom edge and parallel to the base of the cup. Discard any cup if the two measured diameters differ by more than 0.08 mm. (0.003 inch). Average the two readings on each cup. Determine the hardness of the cups according to S7.4.

S6.6.5 Procedure. Rinse the cups in ethanol (isopropanol when testing DOT 5 fluids) for not more than 30 seconds and wipe dry with a clean lint-free cloth. Place one cup with lip edge facing up, in each jar. Insert a metal strip assembly inside each cup with the fastened end down and the free end extending upward. (See Figure 5.) When testing DOT 3 and DOT 4 brake fluids, mix 760 ml. of brake fluid with 40 ml. of distilled water, or, when testing DOT 5 brake fluids, humidify 800 ml. of brake fluid in accordance with S 6.2, eliminating determination of the ERBP; using this water-wet mixture, cover each strip assembly to a minimum depth of 10 mm. above the tops of the strips. Tighten the lids and

place the jars for 120 ± 2 hours in an oven maintained at $100 \pm 2^\circ \text{C}$. ($212 \pm 3.6^\circ \text{F}$). Allow the jars to cool at $23 \pm 5^\circ \text{C}$. ($73.4 \pm 9^\circ \text{F}$) for 60 to 90 minutes. Immediately remove the strips from the jars using forceps, agitating the strip assembly in the fluid to remove loose adhering sediment. Examine the test strips and jars for adhering crystalline deposits. Disassemble the metal strips, and remove adhering fluid by flushing with water; clean each strip by wiping with a clean cloth wetted with ethanol (isopropanol when testing DOT 5 fluids). Examine the strips for evidence of corrosion and pitting. Disregard staining or discoloration. Place the strips in a desiccator containing silica gel or other suitable desiccant, maintained at $23 \pm 5^\circ \text{C}$. ($73.4 \pm 9^\circ \text{F}$), for at least 1 hour. Weigh each strip to the nearest 0.1 mg. Determine the change in weight of each metal strip. Average the results for the two strips of each type of metal. Immediately following the cooling period, remove the cups from the jars with forceps. Remove loose adhering sediment by agitation of the cups in the mixture. Rinse the cups in ethanol (isopropanol when testing DOT 5 fluids) and air-dry. Examine the cups for evidence of sloughing, blisters, and other forms of disintegration. Measure the base diameter and hardness of each cup within 15 minutes after removal from the mixture. Examine the mixture for gelling. Agitate the mixture to suspend and uniformly disperse sediment. From each jar, transfer a 100 ml. portion of the mixture to an ASTM cone-shaped centrifuge tube. Determine the percent sediment after centrifuging as described in S7.5. Measure the pK value of the mixture according to S6.4.6. Measure the pH value of the DOT 3 and DOT 4 test mixture according to S6.4.6.

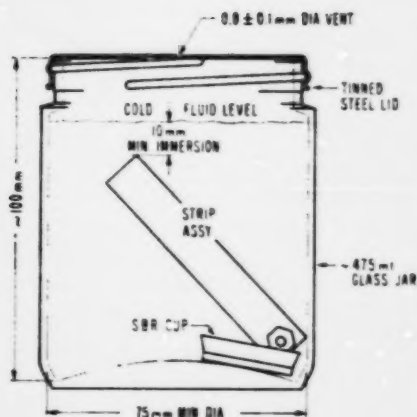


FIG. 5. CORROSION TEST APPARATUS

S6.6.6 Calculation.

(a) Measure the area of each type of test strip to the nearest square centimeter. Divide the average change in weight for each type by the area of that type.

(b) Note other data and evaluations indicating compliance with S5.1.6. In the event of a marginal pass on inspection by attributes, or of a failure in one of the duplicates, run another set of duplicate samples. Both repeat samples shall meet all requirements of S5.1.6.

S6.7 Fluidity and appearance at low temperatures. Determine the fluidity and appearance of a sample of brake fluid at each of two selected temperatures by the following procedure.

S6.7.1 Summary of procedure. Brake fluid is chilled to expected minimum exposure temperatures and observed for clarity, gelation, sediment, separation of components, excessive viscosity or thixotropy.

S6.7.2 Apparatus.

(a) **Oil sample bottle.** Two clear flint glass 4-ounce bottles made especially for sampling oil and other liquids, with a capacity of approximately 125 ml., an outside diameter of 37 ± 0.05 mm. and an overall height of 165 ± 2.5 mm.

(b) **Cold chamber.** An air bath cold chamber capable of maintaining storage temperatures down to minus 55° C.

(minus 67° F.) with an accuracy of $\pm 2^\circ$ C. (3.6° F.).

(c) **Timing device.** A timing device in accordance with S6.3.2(c).

S6.7.3 Procedure.

(a) Place 100 ± 1 ml. of brake fluid at room temperature in an oil sample bottle. Stopper the bottle with an unused cork and place in the cold chamber at the higher storage temperature specified in Table II (S5.1.7(c)). After 144 ± 4 hours remove the bottle from the chamber, quickly wipe it with a clean, lint-free cloth, saturated with ethanol (isopropanol when testing DOT 5 fluids) or acetone. Examine the fluid for evidence of sludging, sedimentation, crystallization, or stratification. Invert the bottle and determine the number of seconds required for the air bubble to travel to the top of the fluid. Let sample warm to room temperature and examine.

(b) Repeat S6.7.3(a), substituting the lower cold chamber temperature specified in Table II, and a storage period of 6 hours ± 12 minutes.

NOTE: Test specimens from either storage temperature may be used for the other only after warming up to room temperature.

S6.8 Evaporation. The evaporation residue, and pour point of the evaporation residue of brake fluid, are determined by the following procedure. Four replicate samples are run.

S6.8.1 Summary of the procedure. The volatile diluent portion of a brake fluid is evaporated in an oven at 100° C. (212° F.). The nonvolatile lubricant portion (evaporation residue) is measured and examined for grittiness; the residues are then combined and checked to assure fluidity at minus 5° C. (23° F.).

S6.8.2 Apparatus.

(a) **Petri dishes.** Four covered glass petri dishes approximately 100 mm. in diameter and 15 mm. in height.

(b) **Oven.** A top-vented gravity-convection oven capable of maintaining a temperature of $100 \pm 2^\circ$ C. ($212 \pm 3.6^\circ$ F.).

(c) **Balance.** A balance having a capacity of at least 100 grams, capable of weighing to the nearest 0.01 gram, and suitable for weighing the petri dishes.

(d) **Oil sample bottle.** A glass sample bottle as described in S6.7.2(a).

(e) *Cold chamber.* Air bath cold chamber capable of maintaining an oil sample bottle at minus $5^{\circ}\pm 1^{\circ}$ C. ($23^{\circ}\pm 2^{\circ}$ F.).

(f) *Timing device.* A timing device as described in S6.3.2(e).

S6.8.3 Procedure. Obtain the tare weight of each of the four covered petri dishes to the nearest 0.01 gram. Place 25 ± 1 ml. of brake fluid in each dish, replace proper covers and reweigh. Determine the weight of each brake fluid test specimen by the difference. Place the four dishes, each inside its inverted cover, in the oven at $100^{\circ}\pm 2^{\circ}$ C. ($212^{\circ}\pm 3.6^{\circ}$ F.) for 46 ± 2 hours. (Note: Do not simultaneously heat more than one fluid in the same oven.) Remove the dishes from the oven, allow to cool to $23^{\circ}\pm 5^{\circ}$ C. ($73.4^{\circ}\pm 9^{\circ}$ F.), and weigh. Return to the oven for an additional 24 ± 2 hours. If at the end of 72 ± 4 hours the average loss by evaporation is less than 60 percent, discontinue the evaporation procedure and proceed with examination of the residue. Otherwise, continue this procedure either until equilibrium is reached as evidenced by an incremental weight loss of less than 0.25 gram in 24 hours on all individual dishes or for a maximum of 7 days. During the heating and weighing operation, if it is necessary to remove the dishes from the oven for a period of longer than 1 hour, the dishes shall be stored in a desiccator as soon as cooled to room temperature. Calculate the percentage of fluid evaporated from each dish. Examine the residue in the dishes at the end of 1 hour at $23^{\circ}\pm 5^{\circ}$ C. ($73.4^{\circ}\pm 9^{\circ}$ F.). Rub any sediment with the fingertip to determine grittiness or abrasiveness. Combine the residues from all four dishes in a 4-ounce oil sample bottle and store vertically in a cold chamber at minus $5^{\circ}\pm 1^{\circ}$ C. ($23^{\circ}\pm 2^{\circ}$ F.) for 60 ± 10 minutes. Quickly remove the bottle and place in the horizontal position. The residue must flow at least 5 mm. (0.2 inch) along the tube within 5 seconds.

S6.8.4 Calculation. The average of the percentage evaporated from all four dishes is the loss by evaporation.

S6.9 Water tolerance. Evaluate the water tolerance characteristics of a brake fluid by running one test speci-

men according to the following procedure.

S6.9.1 Summary of the procedure. DOT 3 and DOT 4 brake fluid is diluted with 3.5 percent water, and DOT 5 brake fluid is humidified, then stored at minus 40° C. (minus 40° F.) for 120 hours. The cold, water-wet fluid is first examined for clarity, stratification, and sedimentation, then placed in an oven at 60° C. (140° F.) for 24 hours. On removal, it is again examined for stratification, and the volume percent of sediment determined by centrifuging.

S6.9.2 Apparatus.

(a) *Centrifuge tube.* See S7.5.1(a).

(b) *Centrifuge.* See S7.5.1(b).

(c) *Cold chamber.* See S6.7.2(b).

(d) *Oven.* Gravity or forced convection oven.

(e) *Timing device.* See S6.3.2(e).

S6.9.3 Procedure.

(a) *At low temperature.* Humidify 100 ± 1 ml. of DOT 5 brake fluid in accordance with S6.2 eliminating determination of the ERBP. When testing DOT 3 and DOT 4 brake fluids, mix 3.5 ± 0.1 ml. of distilled water with 100 ± 1 ml. of the brake fluid; pour into a centrifuge tube. Stopper the tube with a clean cork and place in the cold chamber maintained at minus $40\pm 2^{\circ}$ C. (minus $40\pm 3.6^{\circ}$ F.). After 120 hours ± 2 hours remove the tube, quickly wipe with clean lint-free cloth saturated with ethanol or acetone and examine the fluid for evidence of sludging, sedimentation, crystallization, or stratification. Invert the tube and determine the number of seconds required for the air bubble to travel to the top of the fluid. (The air bubble is considered to have reached the top of the fluid when the top of the bubble reaches the 2 ml. graduation of the centrifuge tube.) If the wet fluid has become cloudy, warm to $23\pm 5^{\circ}$ C. ($73.4\pm 9^{\circ}$ F.) and note appearance and fluidity.

(b) *At 60° C. (140° F.).* Place tube and brake fluid from S6.9.3(a) in an oven maintained at $60\pm 2^{\circ}$ C. ($140\pm 3.6^{\circ}$ F.) for 24 ± 2 hours. Remove the tube and immediately examine the contents for evidence of stratification. Determine the percent sediment by centrifuging as described in S7.5.

S6.10 Compatibility. The compatibility of a brake fluid with other brake fluids shall be evaluated by running one test sample according to the following procedure.

S6.10.1 Summary of the procedure. Brake fluid is mixed with an equal volume of SAE RM-1 Compatibility Fluid, then tested in the same way as for water tolerance (S6.9.3) except that the bubble flow time is not measured. This test is an indication of the compatibility of the test fluid with other motor vehicle brake fluids at both high and low temperatures.

S6.10.2 Apparatus and materials.

(a) *Centrifuge tube.* See S7.5.1(a).

(b) *Centrifuge.* See S7.5.1(b).

(c) *Cold chamber.* See S6.7.2(b).

(d) *Oven.* See S6.9.2(d).

(e) *SAE RM-1 Compatibility Fluid.* As described in Appendix A of SAE Standard J1703b.

S6.10.3 Procedure.

(a) *At low temperature.* Mix 50 ± 0.5 ml. of brake fluid with 50 ± 0.5 ml. of SAE RM-1 Compatibility Fluid. Pour this mixture into a centrifuge tube and stopper with a clean dry cork. Place tube in the cold chamber maintained at minus $40 \pm 2^\circ$ C. (minus $40 \pm 3.6^\circ$ F.). After 24 ± 2 hours, remove tube, quickly wipe with a clean lint-free cloth saturated with ethanol (isopropanol when testing DOT 5 fluids) or acetone. Examine the test specimen for evidence of sludging, sedimentation, or crystallization. DOT 3 and DOT 4 test fluids shall also be examined for stratification.

(b) *At 60° C. (140° F.).* Place tube and test fluid from S6.10.3(a) for 24 ± 2 hours in an oven maintained at $60 \pm 2^\circ$ C. ($140 \pm 3.6^\circ$ F.). Remove the tube and immediately examine the contents of DOT 3 and DOT 4 test mixtures for evidence of stratification. Determine percent sediment by centrifuging as described in S7.5.

S6.11 Resistance to oxidation. The stability of a brake fluid under oxidative conditions shall be evaluated by running duplicate samples according to the following procedure.

S6.11.1 Summary of the procedure. DOT 3 and DOT 4 brake fluids are activated with a mixture of approximately 0.2 percent benzoyl peroxide and 5 percent water. DOT 5 brake

fluid is humidified in accordance with S6.2 eliminating determination of the ERBP, and then approximately 0.2 percent benzoyl peroxide is added. A corrosion test strip assembly consisting of cast iron and an aluminum strip separated by tinfoil squares at each end is then rested on a piece of SBR WC cup positioned so that the test strip is half immersed in the fluid, and oven-aged at 70° C. (158° F.) for 168 hours. At the end of this period the metal strips are examined for pitting, etching, and weight loss.

S6.11.2 Equipment.

(a) *Balance.* See S6.6.2(a).

(b) *Desiccators.* See S6.6.2(b).

(c) *Oven.* See S6.6.2(c).

(d) Three glass test tubes approximately 22 mm. outside diameter by 175 mm. in length.

S6.11.3 Reagents and materials.

(a) *Benzoyl peroxide, reagent grade, 96 percent.* (Benzoyl peroxide that is brownish, or dusty, or has less than 90 percent purity, must be discarded.) Reagent strength may be evaluated by ASTM E298-68, "Standard Methods for Assay of Organic Peroxides."

(b) *Corrosion test strips.* Two sets of cast iron and aluminum metal test strips as described in Appendix C of SAE Standard J1703b.

(c) *Tin/foil.* Four unused pieces of tinfoil approximately 12 mm. ($\frac{1}{2}$ inch) square and between 0.02 and 0.06 mm. (0.0008 and 0.0024 inch) in thickness. The foil shall be at least 99.9 percent tin and contain not more than 0.025 percent lead.

(d) *SBR cups.* Two unused, approximately one-eighth sections of a standard SAE SBR WC cup (as described in S7.6).

(e) *Machine screw and nut.* Two clean oil-free, No. 6 or $8-32 \times \frac{3}{4}$ - or $\frac{1}{2}$ -inch long (or equivalent metric size), round or fillister head, uncoated mild steel machine screws, with matching plain nuts.

S6.11.4 Preparation.

(a) *Corrosion test strips.* Prepare two sets of aluminum and cast iron test strips according to S6.6.4(a) except for assembly. Weigh each strip to the nearest 0.1 mg. and assemble a strip of each metal on a machine screw, separating the strips at each end with a piece of tinfoil. Tighten the nut

enough to hold both pieces of foil firmly in place.

(b) *Test mixture.* Place 30 ± 1 ml. of the brake fluid under test in a 22 by 175 mm. test tube. For DOT 3 and DOT 4 fluids, add 0.060 ± 0.002 gram of benzoyl peroxide, and 1.50 ± 0.05 ml. of distilled water. For DOT 5 fluids, use test fluid humidified in accordance with S6.2, and add only the benzoyl peroxide. Stopper the tube loosely with a clean dry cork, shake, and place in an oven for 2 hours at loosely with a clean dry cork, shake, and place in an oven for 2 hours at $70 \pm 2^\circ \text{C}$. ($158 \pm 3.6^\circ \text{F}$). Shake every 15 minutes to effect solution of the peroxide, but do not wet cork. Remove the tube from the oven and allow to cool to $23 \pm 5^\circ \text{C}$. ($73.4 \pm 9^\circ \text{F}$). Begin testing according to paragraph S6.11.5 not later than 24 hours after removal of tube from oven.

S6.11.5 *Procedure.* Place a one-eighth SBR cup section in the bottom of each tube. Add 10 ml. of prepared test mixture to each test tube. Place a metal-strip assembly in each, the end of the strip without the screw resting on the rubber, and the solution covering about one-half the length of the strips. Stopper the tubes with clean dry corks and store upright for 70 ± 2 hours at $23 \pm 5^\circ \text{C}$. ($73.4 \pm 9^\circ \text{F}$). Loosen the corks and place the tubes for 168 ± 2 hours in an oven maintained at $70 \pm 2^\circ \text{C}$. ($158 \pm 3.6^\circ \text{F}$). Afterwards remove and disassemble strips. Examine the strips and note any gum deposits. Wipe the strips with a clean cloth wet with ethanol (isopropanol when testing DOT 5 fluids) and note any pitting, etching or roughening of surface disregarding stain or discoloration. Place the strips in a desiccator over silica gel or other suitable desiccant, at $23 \pm 5^\circ \text{C}$. ($73.4 \pm 9^\circ \text{F}$), for at least 1 hour. Again weigh each strip to the nearest 0.1 mg.

S6.11.6 *Calculation.* Determine corrosion loss by dividing the change in weight of each metal strip by the total surface area of each strip measured in square centimeters, to the nearest square centimeter. Average the results for the two strips of each type of metal, rounding to the nearest 0.05 mg. per square centimeter. If only one of the duplicates fails for any reason,

run a second set of duplicate samples. Both repeat samples shall meet all requirements of S6.1.11.

S6.12 *Effect on SBR cups.* The effects of a brake fluid in swelling, softening, and otherwise affecting standard SBR WC cups shall be evaluated by the following procedure.

S6.12.1 *Summary of the procedure.* Four standard SAE SBR WC cups are measured and their hardnesses determined. The cups, two to a jar, are immersed in the test brake fluid. One jar is heated for 70 hours at 70°C . (158°F), and the other for 70 hours at 120°C . (248°F). Afterwards, the cups are washed, examined for disintegration, remeasured and their hardnesses redetermined.

S6.12.2 *Equipment and supplies.*

(a) *Oven.* See S6.6.2(c).

(b) *Glass jars and lids.* Two screw-top, straight-sided round glass jars, each having a capacity of approximately 250 ml. and inner dimensions of approximately 125 mm. in height and 50 mm. in diameter, and a tinned steel lid (no insert or organic coating).

(c) *SBR cups.* See S7.6.

S6.12.3 *Preparation.* Measure the base diameters of the SBR cups as described in S6.6.4(b), and the hardness of each as described in S7.4.

S6.12.4 *Procedure.* Wash the cups in 90 percent ethanol (isopropanol when testing DOT 5 fluids) (see S7.3), for not longer than 30 seconds and quickly dry with a clean, lint-free cloth. Using forceps, place two cups into each of the two jars; add 75 ml. of brake fluid to each jar and cap tightly. Place one jar in an oven held at $70 \pm 2^\circ \text{C}$. ($158 \pm 3.6^\circ \text{F}$) for 70 ± 2 hours. Place the other jar in an oven held at $120 \pm 2^\circ \text{C}$. ($248 \pm 3.6^\circ \text{F}$) for 70 ± 2 hours. Allow each jar to cool for 60 to 90 minutes at $23 \pm 5^\circ \text{C}$. ($73.4 \pm 9^\circ \text{F}$). Remove cups, wash with ethanol (isopropanol when testing DOT 5 fluids) for not longer than 30 seconds, and quickly dry. Examine the cups for disintegration as evidenced by stickiness, blisters, or sloughing. Measure the base diameter and hardness of each cup within 15 minutes after removal from the fluid.

S6.12.5 *Calculation.*

(a) Calculate the change in base diameter for each cup. If the two values,

at each temperature, do not differ by more than 0.10 mm. (0.004 inch) average them to the nearest 0.02 mm. (0.001 inch). If the two values differ by more than 0.10 mm., repeat the test at the appropriate temperature and average the four values as the change in base diameter.

(b) Calculate the change in hardness for each cup. The average of the two values for each pair is the change in hardness.

(c) Note disintegration as evidenced by stickiness, blisters, or sloughing.

S6.13 Strokings properties. Evaluate the lubricating properties, component compatibility, resistance to leakage, and related qualities of a brake fluid by running one sample according to the following procedures.

S6.13.1 Summary of the procedure. Brake fluid is stroked under controlled conditions at an elevated temperature in a simulated motor vehicle hydraulic braking system consisting of four slave wheel cylinders and an actuating master cylinder connected by steel tubing. Referee standard parts are used. All parts are carefully cleaned, examined, and certain measurements made immediately prior to assembly for test. During the test, temperature, rate of pressure rise, maximum pressure, and rate of stroking, are specified and controlled. The system is examined periodically during stroking to assure that excessive leakage of fluid is not occurring. Afterwards, the system is torn down. Metal parts and SBR cups are examined and remeasured. The brake fluid and any resultant sludge and debris are collected, examined, and tested.

S6.13.2 Apparatus and equipment. Either the drum and shoe type of stroking apparatus (see Figure 1 of SAE Standard J1703b), or the stroking fixture type (see Figure 3 of SAE J1703b) arranged as shown in Figure 2 of J1703b. The following components are required.

(a) **Brake assemblies.** With the drum and shoe apparatus: four drum and shoe assembly units (SAE RM-29a) consisting of four forward brake shoes and four reverse brake shoes with linings and four front wheel brake drum assemblies with assembly component parts. With stroking fixture type ap-

paratus: four fixture units including appropriate adapter mounting plates to hold brake wheel cylinder assemblies.

(b) **Braking pressure actuation mechanism.** An actuating mechanism for applying a force to the master cylinder pushrod without side thrust. The amount of force applied by the actuating mechanism shall be adjustable and capable of applying sufficient thrust to the master cylinder to create a pressure of at least 70 kg./sq. cm. (1,000 p.s.i.) in the simulated brake system. A hydraulic gage or pressure recorder, having a range of at least 0 to 70 kg./sq. cm. (0 to 1,000 p.s.i.), shall be installed between the master cylinder and the brake assemblies and shall be provided with a shutoff valve and with a bleeding valve for removing air from the connecting tubing. The actuating mechanism shall be designed to permit adjustable stroking rates of approximately 1,000 strokes per hour. Use a mechanical or electrical counter to record the total number of strokes.

(c) **Heated air bath cabinet.** An insulated cabinet or oven having sufficient capacity to house the four mounted brake assemblies or stroking fixture assemblies, master cylinder, and necessary connections. A thermostatically controlled heating system is required to maintain a temperature of $70 \pm 5^\circ \text{C}$. ($158 \pm 9^\circ \text{F}$.) or $120 \pm 5^\circ \text{C}$. ($248 \pm 9^\circ \text{F}$.) Heaters shall be shielded to prevent direct radiation to wheel or master cylinder.

(d) **Master cylinder (MC) assembly** (SAE RM-15a). One cast iron housing hydraulic brake system cylinder having a diameter of approximately 28 mm. (1 1/4 inch) and fitted for a filler cap and standpipe (see S6.13.2(e)). The MC piston shall be made from SAE CA360 copperbase alloy (half hard). A new MC assembly is required for each test.

(e) **Filler cap and standpipe.** MC filler cap provided with a glass or uncoated steel standpipe. Standpipe must provide adequate volume for thermal expansion, yet permit measurement and adjustment of the fluid level in the system to ± 3 ml. Cap and standpipe may be cleaned and reused.

(f) *Wheel cylinder (WC) assemblies (SAE RM-14a).* Four unused cast iron housing straight bore hydraulic brake WC assemblies having diameters of approximately 28 mm. (1 1/4 inch) for each test. Pistons shall be made from unanodized SAE AA2024 aluminum alloy.

(g) *Micrometer.* Same as S6.6.2(d).

S6.13.3 Materials.

(a) *Standard SBR brake cups.* Eight standard SAE SBR wheel cylinder test cups, one primary MC test cup, and one secondary MC test cup, all as described in S7.6, for each test.

(b) *Steel tubing.* Double wall steel tubing meeting SAE specification J527. A complete replacement of tubing is essential when visual inspection indicates any corrosion or deposits on inner surface of tubing. Tubing from master cylinder to one wheel cylinder shall be replaced for each test (minimum length 3 feet). Uniformity in tubing size is required between master cylinder and wheel cylinder. The standard master cylinder has two outlets for tubing, both of which must be used.

S6.13.4 Preparation of test apparatus.

(a) *Wheel cylinder assemblies.* Use unused wheel cylinder assemblies. Disassemble cylinders and discard cups. Clean all metal parts with ethanol (isopropanol when testing DOT 5 fluids). Inspect the working surfaces of all metal parts for scoring, galling, or pitting and cylinder bore roughness, and discard all defective parts. Remove any stains on cylinder walls with crocus cloth and ethanol (isopropanol when testing DOT 5 fluids). If stains cannot be removed, discard the cylinder. Measure the internal diameter of each cylinder at a location approximately 19 mm. (0.75 inch) from each end of the cylinder bore, taking measurements in line with the hydraulic inlet opening and at right angles to this centerline. Discard the cylinder if any of these four readings exceeds the maximum or minimum limits of 28.66 to 28.60 mm. (1.128 to 1.126 inch). Measure the outside diameter of each piston at two points approximately 90° apart. Discard any piston if either reading exceeds the maximum or minimum limits of 28.55 to 28.52 mm.

(1.124 to 1.123 inch). Select parts to insure that the clearance between each piston and mating cylinder is within 0.08 to 0.13 mm. (0.003 to 0.005 inch). Use unused SBR cups. To remove dirt and debris, rinse the cups in 90 percent ethyl alcohol for not more than 30 seconds and wipe dry with a clean lint-free cloth. Discard any cups showing defects such as cuts, molding flaws, or blisters. Measure the lip and base diameters of all cups with an optical comparator or micrometer to the nearest 0.02 mm. (0.001 inch) along the centerline of the SAE and rubber-type identifications and at right angles to this centerline. Determine base diameter measurements at least 0.4 mm. (0.015 inch) above the bottom edge and parallel to the base of the cup. Discard any cup if the two measured lip or base diameters differ by more than 0.08 mm. (0.003 inch). Average the lip and base diameters of each cup. Determine the hardness of all cups according to S7.4. Dip the rubber and metal parts of wheel cylinders, except housing and rubber boots, in the fluid to be tested and install them in accordance with the manufacturer's instructions. Manually stroke the cylinders to insure that they operate easily. Install cylinders in the simulated brake system.

(b) *Master cylinder assembly.* Use an unused master cylinder and unused standard SBR primary and secondary MC cups which have been inspected, measured and cleaned in the manner specified in S6.13.4(a), omitting hardness of the secondary MC cup. However, prior to determining the lip and base diameters of the secondary cup, dip the cup in test brake fluid, assemble on the MC piston, and maintain the assembly in a vertical position at $23 \pm 5^\circ \text{C}$. ($73.4 \pm 9^\circ \text{F}$.) for at least 12 hours. Inspect the relief and supply ports of the master cylinder; discard the cylinder if ports have burrs or wire edges. Measure the internal diameter of the cylinder at two locations (approximately midway between the relief and supply ports and approximately 19 mm. (0.75 inch) beyond the relief port toward the bottom or discharge end of the bore), taking measurements at each location on the vertical and horizontal centerline of the

bore. Discard the cylinder if any reading exceeds the maximum or minimum limits of 28.65 to 28.57 mm. (1.128 to 1.125 inch). Measure the outside diameter of each end of the master cylinder piston at two points approximately 90° apart. Discard the piston if any of these four readings exceed the maximum or minimum limits of 28.55 to 28.52 mm. (1.124 to 1.123 inch). Dip the rubber and metal parts of the master cylinder, except the housing and push rod-boot assembly, in the brake fluid and install in accordance with manufacturer's instructions. Manually stroke the master cylinder to insure that it operates easily. Install the master cylinder in the simulated brake system.

(c) *Assembly and adjustment of test apparatus.* When using a shoe and drum type apparatus, adjust the brake shoe toe clearances to 1 ± 0.1 mm. (0.040 ± 0.004 inch). Fill the system with brake fluid, bleeding all wheel cylinders and the pressure gage to remove entrapped air. Operate the actuator manually to apply a pressure greater than the required operating pressure and inspect the system for leaks. Adjust the actuator and/or pressure relief valve to obtain a pressure of 70 ± 3.5 kg./sq. cm. ($1,000 \pm 50$ p.s.i.). A smooth pressure-stroke pattern is required when using a shoe and drum type apparatus. (Figure 4 of SAE J1703b illustrates the approximate pressure buildup versus the master cylinder piston movement with the stroking fixture apparatus.) The pressure is relatively low during the first part of the stroke and then builds up smoothly to the maximum stroking pressure at the end of the stroke. The stroke length is about 23 mm. (0.9 inch). This permits the primary cup to pass the compensating hole at a relatively low pressure. Using stroking fixtures, the WC piston travel is about 2.5 ± 0.25 mm. (0.100 ± 0.010 inch) when a pressure of 70 kg./sq. cm. is reached. Adjust the stroking rate to $1,000 \pm 100$ strokes per hour. Record the fluid level in the master cylinder standpipe.

S6.13.5 Procedure. Operate the system for $16,000 \pm 1,000$ cycles at $23 \pm 5^\circ$ C. ($73.4 \pm 9^\circ$ F.). Repair any leakage, readjust the brake shoe clearances, and add fluid to the master cyl-

inder standpipe to bring to the level originally recorded, if necessary. Start the test again and raise the temperature of the cabinet within 6 ± 2 hours to $120 \pm 5^\circ$ C. ($248 \pm 9^\circ$ F.). During the test observe operation of wheel cylinders for improper functioning and record the amount of fluid required to replenish any loss, at intervals of 24,000 strokes. Stop the test at the end of 85,000 total recorded strokes. These totals shall include the number of strokes during operation at $23 \pm 5^\circ$ C. ($73.4 \pm 9^\circ$ F.) and the number of strokes required to bring the system to the operating temperature. Allow equipment to cool to room temperature. Examine the wheel cylinders for leakage. Stroke the assembly an additional 100 strokes, examine wheel cylinders for leakage and record volume loss of fluid. Within 16 hours after stopping the test, remove the master and wheel cylinders from the system, retaining the fluid in the cylinders by immediately capping or plugging the ports. Disassemble the cylinders, collecting the fluid from the master cylinder and wheel cylinders in a glass jar. When collecting the stroked fluid, remove all residue which has deposited on rubber and metal internal parts by rinsing and agitating such parts in the stroked fluid and using a soft brush to assure that all loose adhering sediment is collected. Clean SBR cups in ethanol (isopropanol when testing DOT 5 fluids) and dry. Inspect the cups for stickiness, scuffing, blistering, cracking, chipping, and change in shape from original appearance. Within 1 hour after disassembly, measure the lip and base diameters of each cylinder cup by the procedures specified in S6.13.4 (a) and (b) with the exception that lip or base diameters of cups may now differ by more than 0.08 mm. (0.003 inch). Determine the hardness of each cup according to S7.4. Note any sludge or gel present in the test fluid. Within 1 hour after draining the cylinders, agitate the fluid in a glass jar to suspend and uniformly disperse sediment and transfer a 100 ml. portion of this fluid to a centrifuge tube and determine percent sediment as described in S7.5. Allow the tube and fluid to stand for 24 hours, recentrifuge and record any ad-

ditional sediment recovered. Inspect cylinder parts, note any gumming or any pitting on pistons and cylinder walls. Disregard staining or discoloration. Rub any deposits adhering to cylinder walls with a clean soft cloth wetted with ethanol (isopropanol when testing DOT 5 fluids) to determine abrasiveness and removability. Clean cylinder parts in ethanol (isopropanol when testing DOT 5 fluids) and dry. Measure and record diameters of pistons and cylinders according to S6.13.4(a) and (b). Repeat the test if mechanical failure occurs that may affect the evaluation of the brake fluid.

S6.13.6 Calculation.

(a) Calculate the changes in diameters of cylinders and pistons (see S5.1.13(b)).

(b) Calculate the average decrease in hardness of the nine cups tested, as well as the individual values (see S5.1.13(c)).

(c) Calculate the increases in base diameters of the ten cups (see S5.1.13(e)).

(d) Calculate the lip diameter interference set for each of the ten cups by the following formula and average the ten values (see S5.1.13(f)).

$$[(D_1 - D_2)/(D_1 - D_3)] \times 100 = \text{percentage Lip Diameter Interference Set}$$

where:

D_1 = Original lip diameter.

D_2 = Final lip diameter.

D_3 = Original cylinder bore diameter.

S7. Auxiliary test methods and reagent standards.

S7.1 *Distilled water.* Nonreferee reagent water as specified in ASTM D1193-70, "Standard Specifications for Reagent Water," or water of equal purity.

S7.2 *Water content of motor vehicle brake fluids.* Use analytical methods based on ASTM D1123-59, "Standard Method of Test for Water in Concentrated Engine Antifreezes by the Iodine Reagent Method," for determining the water content of brake fluids, or other methods of analysis yielding comparable results. To be acceptable for use, such other method must measure the weight of water added to samples of the SAE RM-1 Compatibility Fluid within ± 15 per-

cent of the water added for additions up to 0.8 percent by weight, and within ± 5 percent of the water added for additions greater than 0.8 percent by weight. The SAE RM-1 Compatibility Fluid used to prepare the samples must have an original ERBP of not less than 182° C. (360° F.) when tested in accordance with S6.1.

S7.3 *Ethanol.* 95 percent (190 proof) ethyl alcohol, USP or ACS, or Formula 3-A Specially Denatured Alcohol of the same concentration (see Part 212 of Title 26, Code of Federal Regulations¹—U.S. Treasury Department, I.R.S. Publication No. 368). For pretest washings of equipment use approximately 90 percent ethyl alcohol, obtained by adding 5 parts of distilled water to 95 parts of ethanol.

S7.4 *Measuring the hardness of SBR brake cups.* Hardness measurements on SBR wheel cylinder cups and master cylinder primary cups shall be made by using the following apparatus and the following procedure.

S7.4.1 Apparatus.

(a) *Anvil.* A rubber anvil having a flat circular top 20 ± 1 mm. ($1\frac{1}{4} \pm \frac{1}{16}$ inch) in diameter, a thickness of at least 9 mm. ($\frac{3}{4}$ inch) and a hardness within 5 IRHDs of the SBR test cup.

(b) *Hardness tester.* A hardness tester meeting the requirements for the standard instrument as described in ASTM D1415-68, "Standard Method of Test for International Hardness of Vulcanized Natural and Synthetic Rubbers," and graduated directly in IRHD units.

S7.4.2 *Procedure.* Make hardness measurements at 23 ± 2 ° C. (73.4° $\pm$ 3.6° F.). Equilibrate the tester and anvils at this temperature prior to use. Center brake cups lip side down on an anvil of appropriate hardness. Following the manufacturer's operating instructions for the hardness tester, make one measurement at each of four points one-fourth inch from the center of the cup and spaced 90° apart. Average the four values, and round off to the nearest IRHD.

¹ 26 CFR Parts 170-299 were transferred to 27 CFR Chapter I at 40 FR 16835, Apr. 15, 1975.

§ 57.5 Sediment by centrifuging. The amount of sediment in the test fluid shall be determined by the following procedure.

§ 57.5.1 Apparatus.

(a) *Centrifuge tube.* Cone-shaped centrifuge tubes conforming to the dimensions given in Figure 6, and made of thoroughly annealed glass. The graduations shall be numbered as shown in Figure 6, and shall be clear and distinct. Scale-error tolerances and smallest graduations between various calibration marks are given in Table V and apply to calibrations made with air-free water at 20° C. (68° F.).

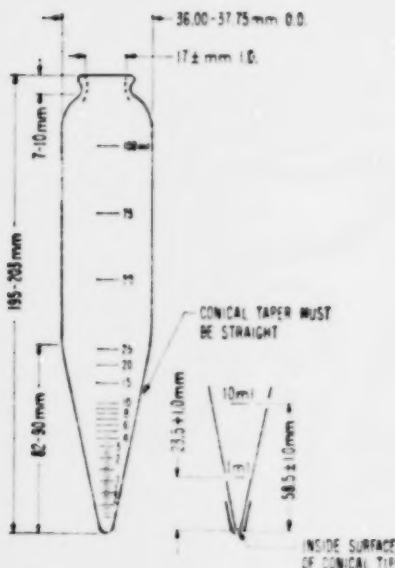


FIG. 6 ASTM 8-IN. CENTRIFUGE TUBE

TABLE V—CALIBRATION TOLERANCES FOR 8-INCH CENTRIFUGE TUBE

Range ml	Subdivision, ml	Volume tolerance ml
0 to 0.1	0.05	+0.02
Above 0.1 to 0.3	0.05	+0.03
Above 0.3 to 0.5	0.05	+0.05
Above 0.5 to 1	0.10	+0.05
Above 1 to 2	0.10	+0.10
Above 2 to 3	0.20	+0.10

TABLE V—CALIBRATION TOLERANCES FOR 8-INCH CENTRIFUGE TUBE—Continued

Range ml	Subdivision, ml	Volume tolerance, ml
Above 3 to 5	0.5	+0.20
Above 5 to 10	1	+0.50
Above 10 to 25	5	+1.00
Above 25 to 100	25	+1.00

(b) *Centrifuge.* A centrifuge capable of whirling two or more filled centrifuge tubes at a speed which can be controlled to give a relative centrifugal force (r.c.f.) between 600 and 700 at the tip of the tubes. The revolving head, trunnion rings, and trunnion cups, including the rubber cushion, shall withstand the maximum centrifugal force capable of being delivered by the power source. The trunnion cups and cushions shall firmly support the tubes when the centrifuge is in motion. Calculate the speed of the rotating head using this equation:

$$\text{r.p.m.} = 265 \sqrt{\text{V r.c.f.} / d}$$

where:

r.c.f. = Relative centrifugal force, and

d = Diameter of swing, in inches, measured between tips of opposite tubes when in rotating position.

Table VI shows the relationship between diameter, swing, relative centrifugal force (r.c.f.), and revolutions per minute.

TABLE VI—ROTATION SPEEDS FOR CENTRIFUGES OF VARIOUS DIAMETERS

Diameter of swing, inches*	R.p.m. at 600 r.c.f.	R.p.m. at 700 r.c.f.
19	1490	1610
20	1450	1570
21	1420	1530
22	1390	1500

*Measured in inches between tips of opposite tubes when in rotating position.

§ 57.5.2 Procedure. Balance the corked centrifuge tubes with their respective trunnion cups in pairs by weight on a scale, according to the centrifuge manufacturer's instructions, and place them on opposite sides of the centrifuge head. Use a dummy assembly when one sample is tested. Then whirl them for 10 minutes, at a

rate sufficient to produce a r.c.f. between 600 and 700 at the tips of the whirling tubes. Repeat until the volume of sediment in each tube remains constant for three consecutive readings.

S7.5.3 Calculation. Read the volume of the solid sediment at the bottom of the centrifuge tube and report the percent sediment by volume. Where replicate determinations are specified, report the average value.

S7.6 Standard styrene-butadiene rubber (SBR) brake cups. SBR brake cups for testing motor vehicle brake fluids shall be manufactured using the following formulation:

FORMULATION OF RUBBER COMPOUND

Ingredient	Parts by weight
SBR type 1503*	100
Oil furnace black (NBS 378)	40
Zinc oxide (NBS 370)	5
Sulfur (NBS 371)	0.25
Stearic Acid (NBS 372)	1
n-tertiary butyl-2-benzothiazole sulfenamide (NBS 380)	1
Symmetrical distearylthyl-p-phenylenediamine	1.5
Dicumyl peroxide (40 percent on precipitated CaCO ₃)	4.5
Total	153.25

* Polysar 1503 has been found suitable.

* Use only within 60 days of manufacture and store at temperature below 27° C. (80° F.)

NOTE: The ingredients labeled (NBS) must have properties identical with those supplied by the National Bureau of Standards.

Compounding, vulcanization, physical properties, size of the finished cups, and other details shall be as specified in Appendix B of SAE J1703b. The cups shall be used in testing brake fluids either within 6 months from date of manufacture when stored at room temperature below 30° C. (86° F.) or within 36 months from date of manufacture when stored at temperatures below minus 15° C. (+5° F.). After removal of cups from refrigeration they shall be conditioned base down on a flat surface for at least 12 hours at room temperature in order to allow cups to reach their true configuration before measurement.

S7.7 Isopropanol. ACS or reagent grade.

[36 FR 22902, Dec. 2, 1971, as amended at 37 FR 17475, Aug. 29, 1972; 38 FR 2981, Jan.

31, 1973; 38 FR 12922, May 17, 1973; 38 FR 14285, May 31, 1973; 39 FR 30353, Aug. 22, 1974; 39 FR 32739, Sept. 11, 1974; 40 FR 13219, Mar. 25, 1975; 40 FR 21474, May 16, 1975; 41 FR 54944, Dec. 16, 1976]

§ 571.117 Standard No. 117: Retreaded pneumatic tires.

S1. Scope. This standard specifies performance, labeling, and certification requirements for retreaded pneumatic passenger car tires.

S2. Purpose. The purpose of this standard is to require retreaded pneumatic passenger car tires to meet safety criteria similar to those for new pneumatic passenger car tires.

S3. Application. This standard applies to retreaded pneumatic tires for use on passenger cars manufactured after 1948.

S4. Definitions.

S4.1 "Casing" means a used tire to which additional tread may be attached for the purpose of retreading.

"Retreaded" means manufactured by a process in which a tread is attached to a casing.

S4.2 All terms defined in §§ 571.109 and 571.110 are used as defined therein.

S5. Requirements.

S5.1 Retreaded tires.

S5.1.1 Except as specified in S5.1.3, each retreaded tire, when mounted on a test rim of the width specified for the tire's size designation in Appendix A of § 571.109 shall comply with the following requirements of § 571.109:

(a) S4.1 (Size and construction).

(b) S4.2.1 (General).

(c) S4.2.2.3 (Tubeless tire resistance to bead unseating).

(d) S4.2.2.4 (Tire strength).

S5.1.2 Except as specified in S5.1.3, each retreaded tire, when mounted on a test rim of the width specified for the tire's size designation in Appendix A of § 571.109, shall comply with the requirements of S4.2.2.2 of § 571.109, except that the tire's section width shall not be more than 110 percent of the section width specified, and the tire's size factor shall be at least 97 percent of the size factor specified, in Appendix A of § 571.109 for the tire's size designation.

S5.1.3 Each retreaded tire shall be capable of meeting the requirements

of S5.1.1 and S5.1.2 when mounted on any rim in accordance with those sections.

S5.1.4 No retreaded tire shall have a size designation, recommended maximum load rating, or maximum permissible inflation pressure that is greater than that originally specified on the casing pursuant to S4.3 of § 571.109, or specified for the casing in Table I.

S5.2 Casings.

S5.2.1 No retreaded tire shall be manufactured with a casing—

(a) On which bead wire or cord fabric is exposed before processing.

(b) On which any cord fabric is exposed during processing, except that cord fabric that is located at a splice, i.e., where two or more segments of the same ply overlap, or cord fabric that is part of the belt material, may be exposed but shall not be penetrated or removed to any extent whatsoever.

S5.2.2 No retreaded tire shall be manufactured with a casing—

(a) From which a belt or ply, or part thereof, is removed during processing; or

(b) On which a belt or ply, or part thereof, is added or replaced during processing.

S5.2.3 Each retreaded tire shall be manufactured with a casing that bears, permanently molded at the time of its original manufacture into or onto the tire sidewall, each of the following:

(a) The symbol DOT;

(b) The size of the tire; and

(c) The actual number of plies or ply rating.

S5.2.4 [Reserved]

S6. Certification and labeling.

S6.1 Except as specified in S6.2, each manufacturer of a retreaded tire shall certify that his product complies with this standard, pursuant to section 114 of the National Traffic and Motor Vehicle Safety Act of 1966, by labeling the tire with the symbol DOT in the location specified in § 574.5 of this chapter.

S6.2 From June 1, 1973, to July 31, 1973, a manufacturer may certify compliance by affixing to the tread or sidewall of the tire, in such a manner that it is not easily removable, a label

that states in letters not less than three thirty-seconds of an inch high:

This retreaded tire was manufactured after June 1, 1973, and conforms to all applicable Federal motor vehicle safety standards.

S6.3 Labeling.

S6.3.1 Each retreaded pneumatic tire manufactured on or after June 1, 1973, shall be labeled, in at least one location on the tire sidewall in letters and numerals not less than 0.078 inch high, with the following information:

(a) The tire's size designation;

(b) The tire's maximum permissible inflation pressure, either as it appears on the casing or as set forth in Table I;

(c) The tire's maximum load, either as it appears on the casing or as set forth in Table I;

(d) The actual number of plies, ply rating, or both;

(e) The word "tubeless" if the tire is a tubeless tire, or the words "tube-type" if the tire is a tube-type tire;

(f) If the tire is of bias/belted construction, the words "bias/belted", or the actual number of plies in the sidewall and the actual number of plies in the tread area.

(g) The word "radial" if the tire is of radial construction.

The information shall either be retained from the casing used in the manufacture of the tire, or may be labeled into or onto the tire during the retreading process, either permanently (through molding, branding, or other method that will produce a permanent label) or by the addition of a label that is not easily removable.

S6.3.2 Each retreaded tire manufactured on or after May 12, 1975, shall bear permanent labeling (through molding, branding, or other method that will produce a permanent label, or through the retention of original casing labeling) in at least one location on the tire sidewall, in letters and numbers not less than 0.078 inch high, consisting of the following information:

(a) The tires maximum permissible load,

(b) The actual number of plies in the tire sidewall, and the actual number of plies in the tire tread area, is different; and

(c) The generic name of each cord material used in the plies (both sidewall and tread area) of the tire.

TABLE I—PLIES

Tire size	2 ply-4 ply (4 ply rating)		4 ply (6 ply rating)		4 ply (8 ply rating)	
	Maximum load	Maximum inflation pressure	Maximum load	Maximum inflation pressure	Maximum load	Maximum inflation pressure
6.0-13	1010	32	1080	36	1140	40
6.50-13	1150	32	1230	36	1300	40
7.00-13	1270	32	1360	36	1440	40
6.45-14	1120	32	1200	36	1270	40
6.95-14	1230	32	1310	36	1390	40
7.35-14	1360	32	1450	36	1540	40
7.75-14	1500	32	1600	36	1690	40
8.25-14	1620	32	1730	36	1830	40
8.55-14	1770	32	1890	36	2000	40
8.85-14	1860	32	1990	36	2100	40
5.60-15	970	32	1040	36	1105	40
5.90-15	1050	32	1130	36	1200	40
6.85-15	1230	32	1320	36	1390	40
7.35-15	1390	32	1480	36	1570	40
7.75-15	1490	32	1590	36	1690	40
8.15-15	1610	32	1720	36	1820	40
8.25-15	1620	32	1730	36	1830	40
8.45-15	1740	32	1860	36	1970	40
8.55-15	1770	32	1890	36	2000	40
8.85-15	1860	32	1980	36	2100	40
9.00-15	1900	32	2030	36	2150	40
9.15-15	1970	32	2100	36	2230	40
8.90-15	2210	32	2360	36	2500	40
A70-13	1060	32	1130	36	1200	40
D70-13	1320	32	1410	36	1490	40
D70-14	1320	32	1410	36	1490	40
E70-14	1400	32	1490	36	1580	40
F70-14	1500	32	1610	36	1700	40
G70-14	1620	32	1730	36	1830	40
H70-14	1770	32	1890	36	2010	40
J70-14	1860	32	1980	36	2100	40
L70-14	1970	32	2100	36	2230	40
C70-15	1230	32	1320	36	1390	40
D70-15	1320	32	1410	36	1490	40
E70-15	1400	32	1490	36	1580	40
F70-15	1500	32	1610	36	1700	40
G70-15	1620	32	1730	36	1830	40
H70-15	1770	32	1890	36	2010	40
J70-15	1860	32	1980	36	2100	40
K70-15	1900	32	2030	36	2150	40
L70-15	1970	32	2100	36	2230	40
165-13	1050	32	1130	36	1200	40
175-13	1150	32	1240	36	1350	40
185-13	1270	32	1390	36	1510	40
155R13	950	32	1015	36	1075	40
155R14	1010	32	1080	36	1140	40
155R15	1015	32	1085	36	1150	40
165R13	1010	32	1080	36	1140	40
165R14	1120	32	1200	36	1270	40
165F15	1130	32	1200	36	1270	40
175R14	1230	32	1310	36	1390	40
185R14	1360	32	1450	36	1540	40
185/70R13	1090	32	1140	36	1190	40
145-14 ¹	865	32	905	36	935	40
145-15	895	32	940	36	975	40
195-15	1550	32	1680	36	1820	40
205-15	1700	32	1840	36	2000	40

¹ Dash Radial—Not an "R" Radial.

(Secs. 103, 112, 113, 114, 119, 201; Pub. L. 89-563; 80 Stat. 718; 80 Stat. 725, 726; 15 U.S.C. 1392, 1401, 1402, 1403, 1407, 1421; delegation of authority at 49 CFR 1.51)

[37 FR 5952, Mar. 23, 1972, as amended at 37 FR 11775, June 14, 1972; 38 FR 2982, Jan. 31, 1973; 38 FR 6999, Mar. 15, 1973; 38 FR 9688, Apr. 19, 1973; 39 FR 1443, Jan. 9, 1974; 39 FR 3553, Jan. 28, 1974; 39 FR 36016, Oct. 7, 1974; 39 FR 39884, Nov. 12, 1974]

EDITORIAL NOTE: For an interpretation of the above section, see 38 FR 10940, May 3, 1973.

§ 571.118 Standard No. 118; Power-operated window systems.

S1. Purpose and scope. This standard specifies requirements for power-operated window and partition systems to minimize the likelihood of death or injury from their accidental operation.

S2. Application. This standard applies to passenger cars and multipurpose passenger vehicles.

S3. Power window or partition systems may be operable only in the following circumstances. (a) When the key that controls activation of the vehicle's engine is in the "ON", "START", or "ACCESSORY" position;

(b) By muscular force unassisted by a vehicle power source;

(c) Upon activation by a key-locking system on the exterior of the vehicle; or

(d) During the interval between the time the locking device which controls the activation of the vehicle's engine is turned off and the opening of either of a two-door vehicle's doors or, in the case of a vehicle with more than two doors, the opening of either of its front doors.

[36 FR 22902, Dec. 2, 1971, as amended at 40 FR 31773, July 29, 1975; 48 FR 20239, May 5, 1983; 48 FR 46794, Oct. 14, 1983]

§ 571.119 Standard No. 119; New pneumatic tires for vehicles other than passenger cars.

S1. Scope. This standard establishes performance and marking requirements for tires for use on multipurpose passenger vehicles, trucks, buses, trailers, and motorcycles.

S2. Purpose. The purpose of this standard is to provide safe operational performance levels for tires used on motor vehicles other than passenger cars, and to place sufficient information on the tires to permit their proper selection and use.

S3. Application. This standard applies to new pneumatic tires designed

for highway use on multipurpose passenger vehicles, trucks, buses, trailers, and motorcycles manufactured after 1948.

S4. Definitions. All terms defined in the Act and the rules and standards issued under its authority are used as defined therein.

"Light truck tire" means a tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.

"Model rim assembly" means a test device that (a) includes a rim which conforms to the published dimensions of a commercially available rim, (b) includes an air valve assembly when used for testing tubeless tires or an inert tube and flap (as required) when used for testing tubetype tires, and (c) undergoes no permanent rim deformation and allows no loss of air through the portion that it comprises of the tire-rim pressure chamber when a tire is properly mounted on the assembly and subjected to the requirements of this standard.

S5. Tire and rim matching information.

S5.1 Each manufacturer of tires shall ensure that a listing of the rims that may be used with each tire that he produces is provided to the public. For purposes of this section each rim listing shall include dimensional specifications and a diagram of the rim. However a listing compiled in accordance with paragraph (a) of this section need not include dimensional specifications or a diagram of a rim if the rim's dimensional specifications and diagram are contained in each listing published in accordance with paragraph (b) of this standard. The listing shall be in one of the following forms:

(a) Listed by manufacturer name or brand name in a document furnished to dealers of the manufacturer's tires to any person upon request and in duplicate to: Tire Division, National Highway Safety Administration, 400

Seventh Street SW., Washington, D.C. 20590; or

(b) Contained in publications, current at the date of manufacture of the tire or any later date, of at least one of the following organizations:

The Tire and Rim Association

The European Tyre and Rim Technical Organisation

Japan Automobile Tire Manufacturers' Association, Inc.

Deutsche Industrie Norm

British Standards Institution

Scandinavian Tire and Rim Organization

S5.2 Information contained in a publication specified in S5.1(b) which lists general categories of tires and rims by size designation, type of construction, and/or intended use, shall be considered to be manufacturer's information pursuant to S5.1 for the listed tires, unless the publication itself or specific information provided according to S5.1(a) indicates otherwise.

S6. Requirements. Each tire shall be capable of meeting any of the applicable requirements set forth below, when mounted on a model rim assembly corresponding to any rim designated by the tire manufacturer for use with the tire in accordance with S5. However, a particular tire need not meet further requirements after having been subjected to and met the endurance test (S6.1), strength test (S6.2), or high speed performance test (S6.3).

S6.1 Endurance.

S6.1.1 Prior to testing in accordance with the procedures of S7.2, a tire shall exhibit no visual evidence of tread, sidewall, ply, cord, innerliner, or bead separation, chunking, broken cords, cracking, or open splices.

S6.1.2 When tested in accordance with the procedures of S7.2:

(a) There shall be no visual evidence of tread, sidewall, ply, cord, innerliner, or bead separation, chunking, broken cords, cracking, or open splices.

(b) The tire pressure at the end of the test shall be not less than the initial pressure specified in S7.2(a).

S6.2 Strength. When tested in accordance with the procedures of S7.3 a tire's average breaking energy value shall be not less than the value speci-

fied in Table II for that tire's size and load range.

S6.3 High speed performance. When tested in accordance with the procedures of S7.4, a tire shall meet the requirements set forth in S6.1.1 and S6.1.2 (a) and (b). However, this requirement applies only to motorcycle tires and to non-speed-restricted tires of 14.5-in nominal rim diameter or less marked load range A, B, C, or D.

S6.4 Treadwear indicators. Except as specified below, each tire shall have at least six treadwear indicators spaced approximately equally around the circumference of the tire that enable a person inspecting the tire to determine visually whether the tire has worn to a tread depth of one-sixteenth of an inch. Tires with 12-inch or smaller rim diameter shall have at least three such treadwear indicators. Motorcycle tires shall have at least three such indicators which permit visual determination that the tire has worn to a tread depth of one-thirty-second of an inch.

S6.5 Tire markings. Except as specified below, each tire shall be marked on each sidewall with the information specified in paragraphs (a) through (j) of this section. The markings shall be placed between the maximum section width (exclusive of sidewall decorations or curb ribs) and the bead on at least one sidewall, unless the maximum section width of the tire is located in an area which is not more than one-fourth of the distance from the bead to the shoulder of the tire. If the maximum section width falls within that area, the markings shall appear between the bead and a point one-half the distance from the bead to the shoulder of the tire, on at least one sidewall. The markings shall be in letters and numerals not less than 0.078 inch high and raised above or sunk below the tire surface not less than 0.015 inch, except that the marking depth shall be not less than 0.010 inch in the case of motorcycle tires. The tire identification and the DOT symbol labeling shall comply with Part 574 of this chapter. Markings may appear on only one sidewall and the entire sidewall area may be used in the case of motorcycle tires and recre-

ational, boat, baggage, and special trailer tires.

(a) The symbol DOT, which shall constitute a certification that the tire conforms to applicable Federal motor vehicle safety standards. This symbol may be marked on only one sidewall.

(b) The tire identification number required by Part 574 of this chapter. This number may be marked on only one sidewall.

(c) The tire size designation as listed in the documents and publications designated in S5.1.

(d) The maximum load rating and corresponding inflation pressure of the tire, shown as follows:

(Mark on tires rated for single and dual load):

Max load single — lbs at — psi cold.
Max load dual — lbs at — psi cold.

(Mark on tires rated only for single load):
Max load — lbs at — psi cold.

(e) The speed restriction of the tire, if 55 mi/h or less, shown as follows:

Max speed — mph.

(f) The actual number of plies and the composition of the ply cord material in the sidewall, and, if different, in the tread area.

(g) The words "tubeless" or "tube type" as applicable.

(h) The word " regroovable " if the tire is designed for regrooving.

(i) The word "radial" if a radial tire.

(j) The letter designating the tire load range.

S6.6 Maximum load rating. If the maximum load rating for a particular tire size is shown in one or more of the publications described in S5.1(b), each tire of that size designation shall have a maximum load rating that is not less than the published maximum load rating, or if there are differing published ratings for the same tire size designation, not less than the lowest published maximum load rating for the size designation.

S7. Test procedures.

S7.1 General conditions.

S7.1.1 The tests are performed using an appropriate new tube, tube valve and flap assembly (as required) that allows no loss of air for testing of tube-type tires under S7.2, S7.3, and S7.4, and tubeless tires under S7.3.

S7.1.2 The tire must be capable of meeting the requirements of S7.2 and S7.4 when conditioned to a temperature of 95° F for 3 hours before the test is conducted, and with an ambient temperature maintained at 95° F during all phases of testing. The tire must be capable of meeting the requirements of S7.3 when conditioned at a temperature of 70° F for 3 hours before the test is conducted.

S7.2 Endurance. (a) Mount the tire on a model rim assembly and inflate it to the inflation pressure corresponding to the maximum load rating marked on the tire. Use single maximum load value when the tire is marked with both single and dual maximum load.

(b) After conditioning the tire-rim assembly in accordance with S7.1.2, adjust the tire pressure to that specified in (a) immediately before mounting the tire rim assembly.

(c) Mount the tire-rim assembly on an axle and press it against a flat-faced steel test wheel that is 67.23 inches in diameter and at least as wide as the tread of the tire.

(d) Apply the test load and rotate the test wheel as indicated in Table III for the type of tire tested conducting each successive phase of the test without interruption.

(e) Immediately after running the tire the required time, measure the tire inflation pressure. Remove the tire from the model rim assembly, and inspect the tire.

S7.3 Strength. (a) Mount the tire on a model rim assembly and inflate it to the pressure corresponding to the maximum load, or maximum dual load where there is both a single and dual load marked on the tire. If the tire is tubeless, a tube may be inserted to prevent loss of air during the test in the event of puncture.

(b) After conditioning the tire-rim assembly in accordance with S7.1.2, adjust the tire pressure to that specified in (a).

(c) Force a cylindrical steel plunger, with a hemispherical end and of the diameter specified in Table I for the tire size, perpendicularly into a raised tread element as near as possible to the centerline of the tread, at a rate of 2 inches per minute, until the tire

breaks or the plunger is stopped by the rim.

(d) Record the force and the distance of penetration just before the tire breaks, or if it fails to break, just before the plunger is stopped by the rim.

(e) Repeat the plunger application at 72° intervals around the circumference of the tire, until five measurements are made. However, in the case of tires of 12-in rim diameter or less, repeat the plunger application at 120° intervals around the circumference of the tire, until three measurements are made.

(f) Compute the breaking energy for each test point by the following formula:

$$W = (FP/2)$$

where:

W = Breaking energy,

F = Force in pounds, and

P = Penetration in inches.

(g) Determine the average breaking energy value for the tire by computing the average of the values obtained in accordance with paragraph (f).

S7.4 High speed performance. (a) Perform steps (a) through (c) of S7.2.

(b) Apply a force of 88 percent of the maximum load rating marked on the tire (use single maximum load value when the tire is marked with

both single and dual maximum loads), and rotate the test wheel at 250 rpm for 2 hours.

(c) Remove the load, allow the tire to cool to 95° F., and then adjust the pressure to that marked on the tire for single tire use.

(d) Reapply the same load, and without interruption or readjustment of inflation pressure, rotate the test wheel at 375 rpm for 30 minutes, then at 400 rpm for 30 minutes, and then at 425 rpm for 30 minutes.

(e) Immediately after running the tire the required time, measure the tire inflation pressure. Remove the tire from the model rim assembly, and inspect the tire.

TABLE I—STRENGTH TEST PLUNGER DIAMETER

	Plunger diameter (inches)
Tire type:	
Light truck.....	¾
Motorcycle.....	½
Tires for 12-inch or smaller rims, except motorcycle.....	¾
Tires other than the above types:	
Tubeless:	
17.5-inch or smaller rims.....	¾
Larger than 17.5-inch rims.....	1 ¼
Load range F or less.....	1 ¼
Load range over F.....	1 ½
Tube type:	
Load range F or less.....	1 ¼
Load range over F.....	1 ½

TABLE II—MINIMUM STATIC BREAKING ENERGY (INCH-POUNDS)

Load range		All 12 inch or smaller rim size	Light truck, 17.5 inch or smaller rim tubeless	Tube type	Tubeless	Tube type	Tubeless
Tire characteristic	Motorcycle						
Plunger diameter (inch)		¾	¾	1 ¼		1 ¼	
A	150	800	2,000				
B	300	1,200	2,800				
C	400	1,800	3,200	8,800	5,100		
D		2,400	4,550	7,900	6,500		
E		3,000	5,100	12,500	8,800		
F		3,800	5,700	15,800	12,500		
G			6,300			20,200	15,000
H			6,800			23,000	18,500
J						25,000	19,500
L						27,000	
M						28,500	
N						30,000	

NOTE.—For rayon cord tires, applicable energy values are 80 percent of those in table.

TABLE III—ENDURANCE TEST SCHEDULE

Description	Load range	Test wheel speed (r/m)	Test load: Percent of maximum load rating			Total test revolutions (thousands)
			I—7 hours	II—16 hours	III—24 hours	
Speed-restricted service (miles per hour):						
55	All	125	66	84	101	352.0
50	C.D.	150	75	97	114	423.0
	E.F.G.H.J.L	100	66	84	101	282.5
35	All	75	66	84	101	211.0
Motorcycle	All	250	100	108	117	510.0
All other	A.B.C.D	250	75	97	114	
	E	200	70	88	106	584.0
	F	200	66	84	101	564.0
	G	175	66	84	101	493.5
	H.J.L.N	150	66	84	101	423.5

¹ 4 hr. for tire sizes subject to high speed requirements (S6.3).

² 6 hr. for tire sizes subject to high speed requirements (S6.3).

(Secs. 113, 201, 80 Stat. 718 (15 U.S.C. 1402, 1421); secs. 103, 112, 119, 201, 203, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1401, 1421, 1423); delegation of authority at 49 CFR 1.50) (38 FR 31301, Nov. 13, 1973, as amended at 39 FR 4067, Feb. 1, 1974; 39 FR 5192, Feb. 11, 1974; 39 FR 12105, Apr. 3, 1974; 39 FR 19481, June 3, 1974; 40 FR 5530, Feb. 6, 1975; 43 FR 30542, July 17, 1978; 43 FR 50441, Oct. 30, 1978; 48 FR 25209, June 6, 1983; 50 FR 10773, Mar. 18, 1985)

§ 571.120 Standard No. 120; Tire selection and rims for motor vehicles other than passenger cars.

S1. Scope. This standard specifies tire and rim selection requirements and rim marking requirements.

S2. Purpose. The purpose of this standard is to provide safe operational performance by ensuring that vehicles to which it applies are equipped with tires of adequate size and load rating and with rims of appropriate size and type designation.

S3. Application. This standard applies to multipurpose passenger vehicles, trucks, buses, trailers, and motorcycles, and to rims for use on those vehicles.

S4. Definitions. All terms defined in the Act and the rules and standards issued under its authority are used as defined therein.

"Rim base" means the portion of a rim remaining after removal of all split or continuous rim flanges, side rings, and locking rings that can be detached from the rim.

"Rim size designation" means rim diameter and width.

"Rim diameter" means nominal diameter of the bead seat.

"Rim width" means nominal distance between rim flanges.

"Rim type designation" means the industry or manufacturer's designation for a rim by style or code.

"Weather side" means the surface area of the rim not covered by the inflated tire.

S5. Requirements.

S5.1 Tire and rim selection.

S5.1.1 Except as specified in S5.1.3, each vehicle equipped with pneumatic tires for highway service shall be equipped with tires that meet the requirements of Standard No. 109 (§ 571.109) or Standard No. 119 (§ 571.119), and with rims that are listed by the manufacturer of the tires as suitable for use with those tires, in accordance with S4.4 of Standard No. 109 or S5.1 of Standard No. 119, as applicable.

S5.1.2 Except in the case of a vehicle which has a speed attainable in 2 miles of 50 mph or less, the sum of the maximum load ratings of the tires fitted to an axle shall be not less than the gross axle weight rating (GAWR) of the axle system as specified on the vehicle's certification label required by 49 CFR Part 567. If the certification label shows more than one GAWR for the axle system, the sum shall be not less than the GAWR corresponding to the size designation of the tires fitted

to the axle. If the size designation of the tires fitted to the axle does not appear on the certification label, the sum shall be not less than the lowest GAWR appearing on the label. When a tire listed in Appendix A of Standard No. 100 is installed on a multipurpose passenger vehicle, truck, bus, or trailer, the tire's load rating shall be reduced by dividing by 1.10 before calculating the sum.

S5.1.3 In place of tires that meet the requirements of Standard No. 119, a truck, bus, or trailer may at the request of a purchaser be equipped at the place of manufacture of the vehicle with retreaded or used tires owned or leased by the purchaser, if the sum of the maximum load ratings meets the requirements of S5.1.2. Used tires employed under this provision must have been originally manufactured to comply with Standard No. 119, as evidenced by the DOT symbol.

S5.2 Rim marking. On and after August 1, 1977, each rim or, at the option of the manufacturer in the case of a singlepiece wheel, wheel disc shall be marked with the information listed in paragraphs (a) through (e) of this paragraph, in lettering not less than one-eighth inch high, impressed to a depth or, at the option of the manufacturer, embossed to a height of not less than 0.005 inch. The information listed in paragraphs (a) through (c) of this paragraph shall appear on the weather side. In the case of rims of multipiece construction, the information listed in paragraphs (a) through (e) of this paragraph shall appear on the rim base and the information listed in paragraphs (b) and (d) of this paragraph shall also appear on each other part of the rim.

(a) A designation which indicates the source of the rim's published nominal dimensions, as follows:

(1) "T" indicates The Tire and Rim Association.

(2) "E" indicates The European Tyre and Rim Technical Organisation.

(3) "J" indicates Japan Automobile Tire Manufacturers Association.

(4) "D" indicates Deutsche Industrie Norm.

(5) "M" indicates The Society of Motor Manufacturers & Traders, Ltd.

(6) "B" indicates British Standards Institution.

(7) "S" indicates Scandinavian Tire and Rim Organization.

(8) "N" indicates an independent listing pursuant to S4.4.1(a) of Standard No. 100 or S5.1(a) of Standard No. 119.

(b) The rim size designation, and in case of multipiece rims, the rim type designation. For example: 20 x 5.50, or 20 x 5.5.

(c) The symbol DOT, constituting a certification by the manufacturer of the rim that the rim complies with all applicable motor vehicle safety standards.

(d) A designation that identifies the manufacturer of the rim by name, trademark, or symbol.

(e) The month, day, and year, or the month and year, of manufacture, expressed in numerals. For example,

"September 4, 1976" may be expressed as:
 90476, 904, 76, or 76
 76
 "September 1976" may be expressed as:
 076, 9, or 76
 76 9

S5.3 Label information.

S5.3.1 Vehicles manufactured before December 1, 1984. Each vehicle manufactured before December 1, 1984, shall show the information specified in S5.3.3 through S5.3.5 in the format set forth following this section. The information shall appear either—

(a) After each GAWR listed on the certification label required by § 567.4 or § 567.5 of this chapter; or, at the option of the manufacturer,

(b) On a tire information label affixed to the vehicle in the manner, location, and form described in § 567.4 (b) through (f) of this chapter, as appropriate for each GVWR-GAWR combination listed on the certification label.

S5.3.2 Vehicles manufactured on and after December 1, 1984. Each vehicle manufactured on and after December 1, 1984, shall show the information specified in S5.3.3 through S5.3.5 in the English language, lettered in block capitals and numerals not less than three thirty-seconds of an inch high and in the format set forth following

this section. This information shall appear either—

(a) After each GAWR listed on the certification label required by § 567.4 or § 567.5 of this chapter, or, at the option of the manufacturer,

(b) On a tire information label affixed to the vehicle in the manner, location, and form described in § 567.4 (b) through (f) of this chapter, as appropriate for each GVWR-GAWR combination listed on the certification label.

S5.3.3 The size designation of tires (not necessarily those on the vehicle) appropriate (as specified in S5.1.2) for the GAWR.

S5.3.4 The size designation and, if applicable, the type designation of rims (not necessarily those on the vehicle) appropriate for those tires.

S5.3.5 Cold inflation pressure for those tires.

Truck example

SUITABLE TIRE—RIM CHOICE

GVWR: 17280

GAWR: Front—6280 with 7.50—20(D) tires, 20x6.00 rims, at 75 psi cold single.

GAWR: Rear—11000 with 7.50—20(D) tires, 20x6.00 rims, at 65 psi cold dual.

GVWR: 17340

GAWR: Front—6300 with 7.00—20(E) tires, 20x5.50 rims, at 90 psi cold single.

GAWR: Rear—11040 with 7.00—20(E) tires, 20x5.50 rims, at 80 psi cold dual.

S6. Vehicles manufactured from September 1, 1976, to February 28, 1977. Notwithstanding any other provision of this standard, a vehicle to which this standard applies that is manufactured during the period from September 1, 1976, to February 28, 1977, shall meet each requirement of this standard, with the following exception: In place of tires that meet Standard No. 119 (§ 571.119), the vehicle may be equipped with tires that meet every requirement of that standard other than the tire marking requirements of S6.5 of that standard.

[42 FR 7144, Feb. 7, 1977, as amended at 49 FR 20824, May 17, 1984]

§ 571.21 Standard No. 121: Air Brake Systems.

S1. Scope. This standard establishes performance and equipment requirements for braking systems on ve-

hicles equipped with air brake systems.

S2. Purpose. The purpose of this standard is to insure safe braking performance under normal and emergency conditions.

S3. Application. This standard applies to trucks, buses, and trailers equipped with air brake systems. However, it does not apply to:

(a) Any vehicle that has an overall vehicle width of more than 102 inches with extendable equipment in the fully retracted position;

(b) Any vehicle equipped with an axle that has a gross axle weight rating (GAWR) of 29,000 pounds or more;

(c) Any truck or bus that has a speed attainable in 2 miles of not more than 33 mph;

(d) Any truck that has a speed attainable in 2 miles of not more than 45 mph, an unloaded vehicle weight that is not less than 95 percent of its GVWR, and no capacity to carry occupants other than the driver and operating crew;

(e) Any trailer that has a gross vehicle weight rating (GVWR) of more than 120,000 pounds and whose body conforms to that described in the definition of "Heavy hauler trailer" set forth in S4;

(f) Any trailer that has an unloaded vehicle weight which is not less than 95 percent of its GVWR; and

(g) Any load divider dolly.

Notwithstanding any language to the contrary, sections S5.3.1, S5.3.1.1, S5.3.2, S5.3.2.1, S5.3.2.2, S5.7.1, S5.7.3(a) and S5.7.3(b) of this standard are not applicable to trucks and trailers.

S4. Definitions.

"Agricultural commodity trailer" means a trailer that is designed to transport bulk agricultural commodities in off-road harvesting sites and to a processing plant or storage location, as evidenced by skeletal construction that accommodates harvest containers, a maximum length of 28 feet, and an arrangement of air control lines and reservoirs that minimize damage in field operations.

"Air brake system" means a system that uses air as a medium for transmitting pressure or force from the

driver control to the service brake, but does not include a system that uses compressed air or vacuum only to assist the driver in applying muscular force to hydraulic or mechanical components.

"Antilock system" means a portion of a service brake system that automatically controls the degree of rotational wheel slip at one or more road wheels of the vehicle during braking.

"Auto transporter" means a truck and a trailer designed for use in combination to transport motor vehicles, in that the towing vehicle is designed to carry cargo at a location other than the fifth wheel and to load this cargo only by means of the towed vehicle.

"Heavy hauler trailer" means a trailer with one or more of the following characteristics:

(1) Its brake lines are designed to adapt to separation or extension of the vehicle frame; or

(2) Its body consists only of a platform whose primary cargo-carrying surface is not more than 40 inches above the ground in an unloaded condition, except that it may include sides that are designed to be easily removable and a permanent "front-end structure" as that term is used in § 393.106 of this title.

"Initial brake temperature" means the average temperature of the service brakes on the hottest axle of the vehicle 0.2 mile before any brake application.

"Load divider dolly" means a trailer composed of a trailer chassis and one or more axles, with no solid bed, body, or container attached, and which is designed exclusively to support a portion of the load on a trailer or truck excluded from all the requirements of this standard.

"Pulpwood trailer" means a trailer that is designed exclusively for harvesting logs or pulpwood and constructed with a skeletal frame with no means for attachment of a solid bed, body, or container, and with an arrangement of air control lines and reservoirs designed to minimize damage in off-road operations.

"Skid number" means the frictional resistance of a pavement measured in accordance with American Society for Testing and Materials Method E-274-

70 (as revised July 1974), at 40 m.p.h., omitting water delivery as specified in paragraphs S7.1 and 7.2 of that method.

"Straddle trailer" means a trailer that is designed to transport bulk agricultural commodities from the harvesting location as evidenced by a framework that is driven over the cargo and lifting arms that suspend the cargo for transit.

S5. Requirements. Each vehicle shall meet the following requirements under the conditions specified in S6.

S5.1 Required equipment—trucks and buses. Each truck and bus shall have the following equipment:

S5.1.1 Air compressor. An air compressor of sufficient capacity to increase air pressure in the supply and service reservoirs from 85 pounds per square inch (p.s.i.) to 100 p.s.i. when the engine is operating at the vehicle manufacturer's maximum recommended r.p.m. within a time, in seconds, determined by the quotient

(Actual reservoir capacity × 25)/Required reservoir capacity.

S5.1.2 Reservoirs. One or more service reservoir systems, from which air is delivered to the brake chambers, and either an automatic condensate drain valve for each service reservoir or a supply reservoir between the service reservoir system and the source of air pressure.

S5.1.2.1 The combined volume of all service reservoirs and supply reservoirs shall be at least 12 times the combined volume of all service brake chambers at maximum travel of the pistons or diaphragms. However, the reservoirs on the truck portion of an auto transporter need not meet this requirement.

S5.1.2.2 Each reservoir shall be capable of withstanding an internal hydrostatic pressure of five times the compressor cutout pressure or 500 p.s.i., whichever is greater, for 10 minutes.

S5.1.2.3 Each service reservoir system shall be protected against loss of air pressure due to failure or leakage in the system between the service reservoir and the source of air pressure, by check valves or equivalent devices whose proper functioning can be

checked without disconnecting any air line or fitting.

S5.1.2.4 Each reservoir shall have a condensate drain valve that can be manually operated.

S5.1.3 Towing vehicle protection system. If the vehicle is intended to tow another vehicle equipped with air brakes, a system to protect the air pressure in the towing vehicle from the effects of a loss of air pressure in the towed vehicle.

S5.1.4 Pressure gauge. A pressure gauge in each service brake system, readily visible to a person seated in the normal driving position, that indicates the service reservoir system air pressure. The accuracy of the gauge shall be within plus or minus 7 percent of the compressor cut-out pressure.

S5.1.5 Warning signal. A signal, other than a pressure gage, that gives a continuous warning to a person in the normal driving position when the ignition is in the "on" or "run" position and the air pressure in the service reservoir system is below 60 p.s.i. The signal shall be either visible within the driver's forward field of view, or both audible and visible.

S5.1.6 Antilock warning signal. A signal on each vehicle equipped with an antilock system that gives a continuous warning to a person in the normal driving position when the ignition is in the "on" or "run" position in the event of a total electrical failure of the antilock system. The signal shall be either visible within the driver's forward field of view or both audible, for a duration of at least 10 seconds, and continuously visible. The signal shall operate in the specified manner each time the ignition is returned to the "on" or "run" position.

S5.1.7 Service brake stop lamp switch. A switch that lights the stop lamps when the service brake control is statically depressed to a point that produces a pressure of 6 p.s.i. or less in the service brake chambers.

S5.1.8 Brake distribution. Each vehicle shall be equipped with a service brake system acting on all wheels.

S5.2 Required equipment—trailers. Each trailer shall have the following equipment:

S5.2.1 Reservoirs. One or more reservoirs to which the air is delivered from the towing vehicle.

S5.2.1.1 A reservoir shall be provided that is capable, when pressurized to 90 p.s.i., of releasing the vehicle's parking brakes at least once and that is unaffected by a loss of air pressure in the service brake system.

S5.2.1.2 Total service reservoir volume shall be at least eight times the combined volume of all service brake chambers at maximum travel of the pistons or diaphragms. However, the reservoirs on a heavy hauler trailer and on the trailer portion of an auto transporter need not meet this requirement.

S5.2.1.3 Each reservoir shall be capable of withstanding an internal hydrostatic pressure of 500 p.s.i. for 10 minutes.

S5.2.1.4 Each reservoir shall have a condensate drain valve that can be manually operated.

S5.2.1.5 Each service reservoir shall be protected against loss of air pressure due to failure or leakage in the system between the service reservoir and its source of air pressure by check valves or equivalent devices.

S5.2.2 Brake distribution. Each trailer shall be equipped with a service brake system acting on all wheels.

S5.3 Service brakes—road tests. The service brake system on each truck and bus shall, under the conditions of S6.1, meet the requirements of S5.3.1, S5.3.3, and S5.3.4 when tested without adjustments other than those specified in this standard. The service brake system on each trailer shall, under the conditions of S6.1, meet the requirements of S5.3.2, S5.3.3, and S5.3.4 when tested without adjustments other than those specified in this standard. However, a heavy hauler trailer and the truck and trailer portions of an auto transporter need not meet the requirements of S5.3.

S5.3.1 Stopping distance—trucks and buses. Except for a school bus, when stopped six times for each combination of weight, speed, and road condition specified in S5.3.1.1, in the sequence specified in Table I, the vehicle shall stop at least once in not more than the distance specified in Table II,

measured from the point at which movement of the service brake control begins, without any part of the vehicle leaving the roadway and without lockup of any wheel at speeds above 10 mph except for:

(a) Controlled lockup of wheels allowed by an antilock system, or

(b) Lockup of wheels on nonsteerable axles other than the two rearmost nonliftable, nonsteerable axles on a vehicle with more than two nonsteerable axles.

TABLE I—STOPPING SEQUENCE

1. Burnish.
2. Control trailer service brake stops at 60 mi/h (for truck-tractors tested with a control trailer in accordance with S6.1.10.6).
3. Control trailer emergency brake stops at 60 mi/h (for truck-tractors tested with a control trailer in accordance with S6.1.10.7).
4. Stops with vehicle at gross vehicle weight rating:
 - (a) 20 mi/h service brake stops on skid number of 81.
 - (b) 60 mi/h service brake stops on skid number of 81.
 - (c) 20 mi/h service brake stops on skid number range 30.
 - (d) 20 mi/h emergency brake stops on skid number of 81.
 - (e) 60 mi/h emergency brake stops on skid number of 81.
5. Parking brake test with vehicle loaded to gross vehicle weight rating.
6. Stops with vehicle at unloaded weight plus 500 lb:
 - (a) 20 mi/h service brake stops on skid number of 81.
 - (b) 60 mi/h service brake stops on skid number of 81.
 - (c) 20 mi/h service brake stops on skid number range 30.
 - (d) 20 mi/h emergency brake stops on skid number of 81.
 - (e) 60 mi/h emergency brake stops on skid number of 81.
7. Parking brake test with vehicle at unloaded weight plus 500 lb.

S5.3.1.1 Stop the vehicle from 60 m.p.h. and 20 m.p.h. on a surface with a skid number of 81, and from 20 m.p.h. on a wet surface with a skid number of 30, with the vehicle (a) loaded to its gross vehicle weight rating, and (b) at its unloaded vehicle weight plus 500 pounds (including driver and instrumentation). If the speed attainable in 2 miles is less than 60 m.p.h., the vehicle shall stop from a speed in Table II that is 4 to 8 m.p.h.

less than the speed attainable in 2 miles.

TABLE II—STOPPING DISTANCE IN FEET

Vehicle speed in miles per hour	Service brake		Emergency brake, skid No. 81	
	Skid No. 81 (1)	Skid No. 30 (2)	(3)	(4)
20	35	60	63	85
25	53		123	131
30	75		170	186
35	101		225	250
40	131		288	325
45	165		358	409
50	203		435	504
55	246		520	608
60	293		613	720

S5.3.2 *Stopping capability—trailers.* When tested at each combination of weight, speed, and road condition specified in S5.3.2.1, in the sequence specified in Table I, with air pressure of 90 p.s.i. in the control line and service reservoir system and with no application of the towing vehicle's brakes, a trailer shall stop without any part of the trailer leaving the roadway and without lockup of any wheel at speeds above 10 m.p.h., except for

(a) Controlled lockup of wheels allowed by an antilock system, or

(b) Lockup of wheels on nonsteerable axles other than the two rearmost nonliftable, nonsteerable axles on a trailer with more than two nonsteerable axles, or

(c) In the case of an axle system having more than four wheels, lockup of any wheel other than the outermost wheel at each end of the axle system.

S5.3.2.1 Stop the vehicle from 60 m.p.h. and 20 m.p.h. on a surface with skid number of 81, and from 20 m.p.h. on a wet surface with a skid number of 30 with the vehicle (a) loaded to its gross vehicle weight rating, and (b) at its unloaded vehicle weight plus 500 pounds (including instrumentation).

S5.3.2.2 When stopped in accordance with S5.3.2, a pulpwood trailer need not meet the requirements relating to wheel lockup, but must nevertheless meet the requirements of staying within the 12-foot lane.

S5.3.3 *Brake actuation time.* With an initial service reservoir system air pressure of 100 p.s.i., the air pressure

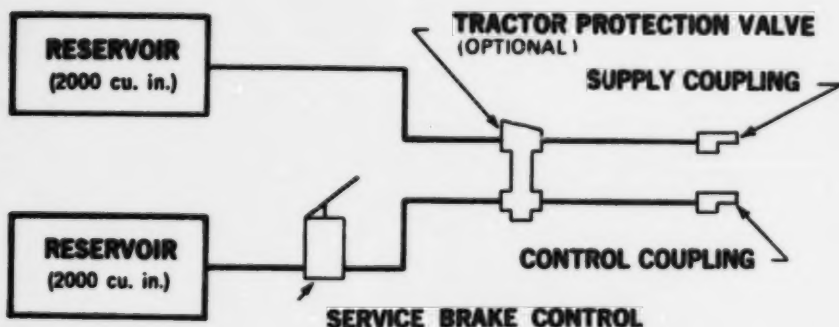
in each brake chamber shall, when measured from the first movement of the service brake control, reach 60 p.s.i. in not more than 0.45 seconds in the case of trucks and buses, 0.35 seconds in the case of trailer converter dollies, and 0.30 seconds in the case of trailers other than trailer converter dollies. A vehicle designed to tow a vehicle equipped with air brakes shall be capable of meeting the above actuation time requirement with a 50-cubic-inch test reservoir connected to the control line coupling. A trailer, including a trailer converter dolly, shall meet the above actuation time requirement with its brake system connected to the test rig shown in Figure 1.

S5.3.4 Brake release time. With an initial service brake chamber air pres-

sure of 95 p.s.i., the air pressure in each brake chamber shall, when measured from the first movement of the service brake control, fall to 5 p.s.i. in not more than 0.55 seconds in the case of trucks and buses, and fall to 5 p.s.i. in not more than 0.65 seconds in the case of trailers, including trailer converter dollies. A vehicle designed to tow another vehicle equipped with air brakes shall be capable of meeting the above release time requirement with a 50-cubic-inch test reservoir connected to the control line coupling. A trailer, including a trailer converter dolly, shall meet the above release time requirements with its brake system connected to the test rig shown in Figure 1.

FIGURE 1

TRAILER TEST RIG



S5.4 Service brake system—dynamometer tests. When tested without prior road testing, under the conditions of S6.2, each brake assembly shall meet the requirements of S5.4.1, S5.4.2, and S5.4.3 when tested in sequence and without adjustments other than those specified in the standard. For purposes of the requirements of S5.4.2 and S5.4.3, an average deceleration rate is the change in velocity divided by the deceleration time measured from the onset of deceleration.

However, a brake assembly on a heavy hauler trailer manufactured before July 1, 1979, need not meet the requirements of this section.

S5.4.1 Brake retardation force. The sum of the retardation forces exerted by the brakes on each vehicle designed to be towed by another vehicle equipped with air brakes shall be such that the quotient

sum of the brake retardation forces/sum of GAWR's

relative to brake chamber air pressure, shall have values not less than those shown in Column 1 of Table III. Retardation force shall be determined as follows:

TABLE III—BRAKE RETARDATION FORCE

Brake retardation force, GAWR—Col. 1	Brake chamber pressure, psi—Col. 2
0.05	20
0.12	30
0.18	40
0.25	50
0.31	60
0.37	70
0.41	80

S5.4.1.1 After burnishing the brake pursuant to S6.2.6, retain the brake assembly on the inertia dynamometer. With an initial brake temperature between 125° F. and 200° F., conduct a stop from 50 m.p.h., maintaining brake chamber air pressure at a constant 20 p.s.i. Measure the average torque exerted by the brake from the time the specified air pressure is reached until the brake stops and divide by the static loaded tire radius specified by the tire manufacturer to determine the retardation force. Repeat the procedure six times, increasing the brake chamber air pressure by 10 p.s.i. each time. After each stop, rotate the brake drum or disc until the temperature of the brake falls to between 125° F., and 200° F.

S5.4.2 Brake power. When mounted on an inertia dynamometer, each brake shall be capable of making 10 consecutive decelerations at an average rate of 9 f.p.s.p.s. from 50 m.p.h. to 15 m.p.h., at equal intervals of 72 seconds, and shall be capable of decelerating to a stop from 20 m.p.h. at an average deceleration rate of 14 f.p.s.p.s. 1 minute after the 10th deceleration. The series of decelerations shall be conducted as follows:

S5.4.2.1 With an initial brake temperature between 150° F. and 200° F. for the first brake application, and the drum or disc rotating at a speed equivalent to 50 m.p.h., apply the brake and decelerate at an average deceleration

rate of 9 f.p.s.p.s. to 15 m.p.h. Upon reaching 15 m.p.h., accelerate to 50 m.p.h. and apply the brake for a second time 72 seconds after the start of the first application. Repeat the cycle until 10 decelerations have been made. The service line air pressure shall not exceed 100 p.s.i. during any deceleration.

S5.4.2.2 One minute after the end of the last deceleration required by S5.4.2.1 and with the drum or disc rotating at a speed of 20 m.p.h., decelerate to a stop at an average deceleration rate of 14 f.p.s.p.s.

S5.4.3 Brake recovery. Starting 2 minutes after completing the tests required by S5.4.2, the brake of a vehicle other than either front axle brake of a truck-tractor shall be capable of making 20 consecutive stops from 30 mph at an average deceleration rate of 12 ft/s/s, at equal intervals of 1 minute measured from the start of each brake application. The service line air pressure needed to attain a rate of 12 ft/s/s shall be not more than 85 lb/in², and not less than 20 lb/in² for a brake not subject to the control of an antilock system, or 12 lb/in² for brake subject to the control of an antilock system.

S5.5 Antilock system.

S5.5.1 Antilock system failure. On a vehicle equipped with an antilock system, electrical failure of any part of the antilock system shall not increase the actuation and release times of the service brakes.

S5.5.2 Antilock system power—trailers. On a trailer equipped with an antilock system that requires electrical power for operation, the power shall be obtained from the stop lamp circuit. Additional circuits may also be used to obtain redundant sources of electrical power.

S5.6 Parking brake system. Each vehicle other than a trailer converter dolly shall have a parking brake system that under the conditions of S6.1 meets the requirements of S5.6.1 or S5.6.2, at the manufacturer's option, and the requirements of S5.6.3 and S5.6.4. Compliance of vehicles manufactured in two or more stages may, at the option of the final-stage manufacturer, be demonstrated to comply with this standard by adher-

ence to the instructions of the incomplete vehicle manufacturer and any intermediate-stage manufacturer provided with the vehicle in accordance with § 568.4(a)(7)(ii) and § 568.5 of Title 49, Code of Federal Regulations. However, the trailer portion of an auto transporter manufactured before January 1, 1980, and any agricultural commodity trailer, heavy hauler trailer, or pulpwood trailer shall meet the requirements of this section or, at the option of the manufacturer, the requirements of § 393.43 of this title.

S5.6.1 Static retardation force. With all other brakes rendered inoperative, during a static drawbar pull in a forward or rearward direction, the static retardation force produced by the application of the parking brakes shall be:

(a) In the case of a vehicle other than a truck-tractor that is equipped with more than two axles, such that the quotient

static retardation force/GAWR

is not less than 0.28 for any axle other than a steerable front axle; and

(b) In the case of a truck-tractor that is equipped with more than two axles, such that the quotient

static retardation force/GVWR

is not less than 0.14.

S5.6.2 Grade holding. With all parking brakes applied, the vehicle shall remain stationary facing uphill and facing downhill on a smooth, dry portland cement concrete roadway with a 20-percent grade, both (a) when loaded to its gross vehicle weight rating, and (b) at its unloaded vehicle weight plus 500 pounds (including driver and instrumentation).

S5.6.3 Application and holding. The parking brake system shall be capable of achieving the minimum performance specified either in S5.6.1 or S5.6.2 with any single leakage-type failure, in any other brake system, of a part designed to contain compressed air or brake fluid (except failure of a component of a brake chamber housing). Once applied, the parking brakes shall be held in the applied position solely by mechanical means.

S5.6.4 Parking brake control—trucks and buses. The parking brake control shall be separate from the

service brake control. It shall be operable by a person seated in the normal driving position. The control shall be identified in a manner that specifies the method of control operation. The parking brake control shall control the parking brakes of the vehicle and of any air braked vehicle that it is designed to tow.

S5.7 Emergency brake system—trucks and buses. Each vehicle shall be equipped with an emergency brake system which, under the conditions of S6.1, conforms to the requirements of S5.7.1 through S5.7.3. However, the truck portion of an auto transporter need not meet the road test requirements of S5.7.1 and S5.7.3.

S5.7.1 Emergency brake system performance. When stopped six times for each combination of weight and speed specified in S5.3.1.1 on a road surface with a skid number of 81, with a single failure in the service brake system of a part designed to contain compressed air or brake fluid (except failure of a common valve, manifold, brake fluid housing, or brake chamber housing), the vehicle shall stop at least once in not more than the distance specified in Column 3 of Table II, measured from the point at which movement of the service brake control begins, without any part of the vehicle leaving the roadway, except that a truck-tractor tested at its unloaded vehicle weight plus 500 pounds shall stop at least once in not more than the distance specified in Column 4 of Table II.

S5.7.2 Emergency brake system operation. The emergency brake system shall be applied and released, and be capable of modulation, by means of the service brake control.

S5.7.3 Towing vehicle emergency brake requirements. In addition to meeting the other requirements of S5.7, a vehicle designed to tow another vehicle equipped with air brakes shall—

(a) In the case of a truck-tractor in the unloaded condition and a single unit truck which is capable of towing an airbrake equipped vehicle and is loaded to gross vehicle weight rating, be capable of meeting the requirements of S5.7.1 by operation of the service brake control only, with the trailer air supply line and air control

line from the towing vehicle vented to the atmosphere in accordance with S6.1.14;

(b) In the case of a truck-tractor loaded to gross vehicle weight rating, be capable of meeting S5.7.1 by operation of the service brake control only, with the air control line from the towing vehicle vented to the atmosphere in accordance with S6.1.14; and

(c) Be capable of modulating the air in the supply or control line to the trailer by means of the service brake control with a single failure in the towing vehicle service brake system as specified in S5.7.1.

S5.8 Emergency braking capability—trailers. Each trailer other than a trailer converter dolly shall have a parking brake system that conforms to S5.6 and that applies with the force specified in S5.6.1 or S5.6.2 when the air pressure in the supply line is at atmospheric pressure. A trailer converter dolly shall have, at the manufacturer's option, (a) a parking brake system that conforms to S5.6 and that applies with the force specified in S5.6.1 or S5.6.2 when the air pressure in the supply line is at atmospheric pressure, or (b) an emergency system that automatically controls the service brakes when the service reservoir is at any pressure above 20 lb/in² and the supply line is at atmospheric pressure. However, the trailer portion of an auto transporter manufactured before January 1, 1980, and any agricultural commodity trailer, heavy hauler trailer, or pulpwood trailer shall meet the requirements of this section or, at the option of the manufacturer, the requirements of § 393.43 of this title.

S6. Conditions. Unless otherwise specified, where a range of conditions is specified, the vehicle must be capable of meeting the requirements at all points within the range.

S6.1 Road test conditions.

S6.1.1 Except as otherwise specified the vehicle is loaded to its gross vehicle weight rating, distributed proportionately to its gross axle weight ratings.

S6.1.2 The inflation pressure is as specified by the vehicle manufacturer for the gross vehicle weight rating.

S6.1.3 Unless otherwise specified, the transmission selector control is in

neutral or the clutch is disengaged during all decelerations and during static parking brake tests.

S6.1.4 All vehicle openings (doors, windows, hood, trunk, cargo doors, etc.) are in a closed position except as required for instrumentation purposes.

S6.1.5 The ambient temperature is between 32° F. and 100° F.

S6.1.6 The wind velocity is zero.

S6.1.7 Unless otherwise specified, stopping tests are conducted on a 12-foot wide level, straight roadway having a skid number of 81. The vehicle is aligned in the center of the roadway at the beginning of a stop.

S6.1.8 The brakes are burnished before testing in accordance with S6.1.8.1. However, for vehicles with parking brake systems not utilizing the service brake friction elements, burnish the friction elements of such systems prior to the parking brake test according to the manufacturer's recommendations.

S6.1.8.1 With the transmission in the highest gear appropriate for the series given in Table IV make 500 brake applications at a deceleration rate of 10 ft/s/s, or at the vehicle's maximum deceleration rate, if less than 10 ft/s/s, in the sequence specified in Table IV. After each brake application, accelerate to the speed specified and maintain that speed until making the next brake application at a point 1 mile from the initial point of the previous brake application. If a vehicle cannot attain the specified speed in 1 mile, continue to accelerate until the specified speed is reached or until the vehicle has traveled 1.5 miles from the initial point of the previous brake application. If during any of the brake applications specified in Table IV, the hottest brake reaches 500° F., make the remainder of the 500 applications from that snub condition except that a higher or lower snub condition shall be used as necessary to maintain an after-stop temperature of 500° F. ± 50° F. Any automatic pressure limiting valve is in use to limit pressure as designed, except that any automatic front axle pressure limiting valve is bypassed if the temperature of the hottest brake on a rear axle exceeds the temperature of the hottest brake on a front axle by more than 125° F. A

bypassed valve is reconnected if the temperature of the hottest brake on a front axle exceeds the temperature of the hottest brake on a rear axle by 100° F. After burnishing, adjust the brakes as recommended by the vehicle manufacturer.

TABLE IV

Series	Snubs	Snub conditions (highest speed specified in miles per hour)
1	175	40-20
2	25	45-20
3	25	50-20
4	25	55-20
5	250	60-20

S6.1.9 Static parking brake tests for a semitrailer are conducted with the front-end supported by an unbraked dolly. The weight of the dolly is included as part of the trailer load.

S6.1.10 In a test other than a static parking brake test, a truck-tractor is tested at its gross vehicle weight rating by coupling it to a flatbed semitrailer (hereafter, control trailer) as specified in S6.1.10.1 to S6.1.10.7.

S6.1.10.2 The center of gravity of the loaded control trailer is on the trailer's longitudinal centerline at a height of 66 ± 3 in. above the ground.

S6.1.10.3 For a truck-tractor with a rear axle gross axle weight rating of 26,000 lb or less, the control trailer has a single axle with a gross axle weight rating of 18,000 lb and a length, measured from the transverse centerline of the axle to the centerline of the kingpin, of 258 ± 6 in.

S6.1.10.4 For a truck-tractor with a total rear axle gross axle weight rating of more than 26,000 lb the control trailer has a tandem axle with a combined gross axle weight rating of 32,000 lb and a length, measured from the transverse centerline between the axles to the centerline of the kingpin, of 390 ± 6 in.

S6.1.10.5 The control trailer is loaded so that its axle is loaded to its gross axle weight rating and the tractor is loaded to its gross vehicle weight rating, with the tractor's fifth wheel adjusted so that the load on each axle

measured at the tire-ground interface is most nearly proportional to the axles' respective gross axle weight ratings.

S6.1.10.6 *Test equipment specification.* The control trailer's service brakes are capable of stopping the combination from the maximum speed at which the tractor is tested, under the conditions of S6.1, without assistance from the tractor brakes, in the distance found by multiplying the value 68, 90, 115, 143, 174, 208, or 245 (corresponding to a speed of 30, 35, 40, 45, 50, 55, or 60 mph as appropriate for the truck-tractor tested) by the ratio:

weight on all axles of combination/weight on trailer axles

with the tractor's fifth wheel adjusted as specified in S6.1.10.5, the trailer service reservoirs pressurized to 100 lb/in², and the trailer loaded so that its axle is at gross axle weight rating and its kingpin is at empty vehicle weight. The stopping distance is measured from the point at which movement of the valve controlling the trailer brakes begins. The service brake chambers on the trailer reach 60 lb/in² in not less than 0.20 second and not more than 0.30 second, measured from the instant at which movement of the valve controlling the trailer brakes begins.

S6.1.10.7 *Test equipment specification.* The control trailer's emergency brakes are capable of stopping the combination under the conditions of S6.1 from the maximum speed at which the tractor is tested, without assistance from the tractor's brakes, in the distance found by multiplying the emergency brake stopping distance in column 3 of table II by the ratio:

weight on all axles of combination/weight on trailer axles

with the combination loaded in accordance with S6.1.10.5. Stopping distance is measured from the point at which movement of the valve controlling the trailer brakes begins. The pressure in trailer brakes begins. In the case of control trailers that utilize parking brakes for emergency stopping capability, the pressure in the trailer's spring parking brake chambers falls from 95 lb/in² to 5 lb/in² in

not less than 0.50 second and not more than 0.60 second, measured from the instant at which movement of the valve controlling the trailer's spring parking brakes begins.

S6.1.11 *Special drive conditions.* A vehicle equipped with an interlocking axle system or a front wheel drive system that is engaged and disengaged by the driver is tested with the system disengaged.

S6.1.12 *Liftable axles.* A vehicle with a liftable axle is tested at gross vehicle weight rating with the liftable axle down and at unloaded vehicle weight with the liftable axle up.

S6.1.13 After September 1, 1975, the trailer test rig shown in Figure 1 is capable of increasing the pressure in a 50 cubic inch reservoir from atmospheric to 60 lb/in² in 0.06 second, measured from the first movement of the service brake control to apply service brake pressure and of releasing pressure in such a reservoir from 95 to 5 lb/in² in 0.22 second measured from the first movement of the service brake control to release service brake pressure.

S6.1.14 In testing the emergency braking system of towing vehicles under S5.7.3(a) and S5.7.3(b), the hose(s) is vented to the atmosphere at any time not less than 1 second and not more than 1 minute before the emergency stop begins, while the vehicle is moving at the speed from which

the stop is to be made and any manual control for the towing vehicle protection system is in the position to supply air and brake control signals to the vehicle being towed. No brake application is made from the time the line(s) is vented until the emergency stop begins and no manual operation of the parking brake system or towing vehicle protection system occurs from the time the line(s) is vented until the stop is completed.

S6.2 *Dynamometer test conditions.*

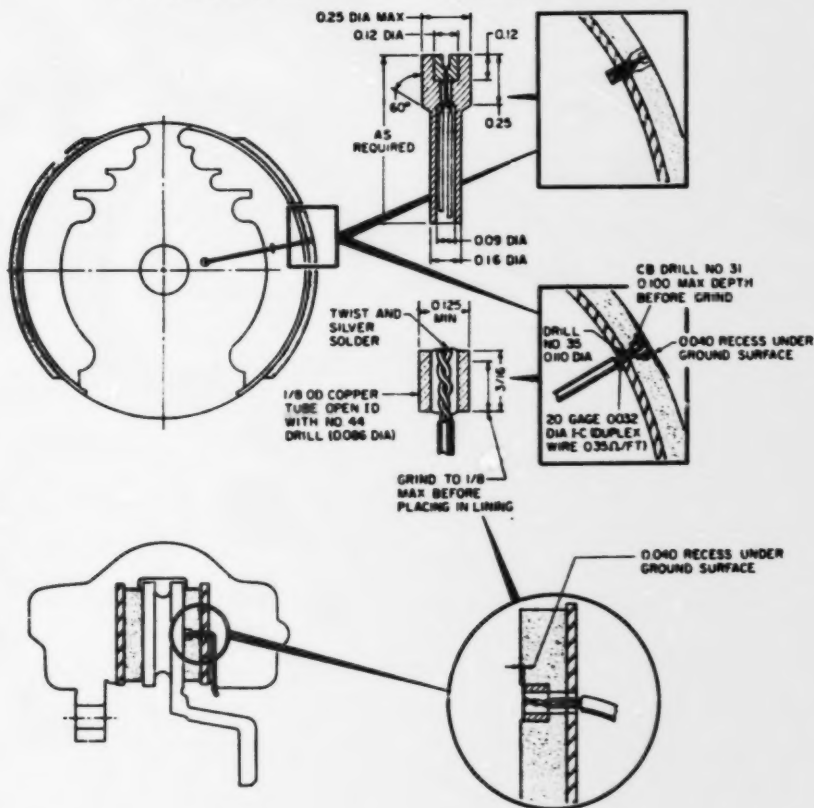
S6.2.1 The dynamometer inertia for each wheel is equivalent to the load on the wheel with the axle loaded to its gross axle weight rating. For a vehicle having additional gross axle weight ratings specified for operation at reduced speeds, the GAWR used is that specified for a speed of 50 mph, or, at the option of the manufacturer, any speed greater than 50 mph.

S6.2.2 The ambient temperature is between 75° F. and 100° F.

S6.2.3 Air at ambient temperature is directed uniformly and continuously over the brake drum or disc at a velocity of 2,200 feet per minute.

S6.2.4 The temperature of each brake is measured by a single plug-type thermocouple installed in the center of the lining surface of the most heavily loaded shoe or pad as shown in Figure 2. The thermocouple is outside any center groove.

FIGURE 2 THERMOCOUPLE INSTALLATION



S6.2.5 The rate of brake drum or disc rotation on a dynamometer corresponding to the rate of rotation on a vehicle at a given speed is calculated by assuming a tire radius equal to the static loaded radius specified by the tire manufacturer.

S6.2.6 Brakes are burnished before testing as follows: Place the brake assembly on an inertia dynamometer and adjust the brake as recommended by the brake manufacturer. Make 200 stops from 40 m.p.h. at a deceleration of 10 f.p.s.p.s., with an initial brake temperature on each stop of not less than 315° F. and not more than 385° F. Make 200 additional stops from 40 m.p.h. at a deceleration of 10 f.p.s.p.s. with an initial brake temperature on each stop of not less than 450° F. and not more than 550° F. After burnishing, the brakes are adjusted as recommended by the brake manufacturer.

S6.2.7 The brake temperature is increased to a specified level by conducting one or more stops from 40 m.p.h. at a deceleration of 10 f.p.s.p.s. The brake temperature is decreased to a specified level by rotating the drum or disc at a constant 30 m.p.h.

(Secs. 102, 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1391, 1392, 1407); delegation of authority at 49 CFR 1.50 and 501.8)

[41 FR 29703, July 19, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 571.121, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 571.122 Standard No. 122: Motorcycle brake systems.

S1. Scope. This standard specifies performance requirements for motorcycle brake systems.

S2. Purpose. The purpose of the standard is to insure safe motorcycle braking performance under normal and emergency conditions.

S3. Application. This standard applies to motorcycles.

S4. Definitions.

"Braking interval" means the distance measured from the start of one brake application to the start of the next brake application.

"Initial brake temperature" means the temperature of the hottest service brake of the vehicle 0.2 mile before any brake application.

"Skid number" means the frictional resistance of a pavement measured in accordance with American Society for Testing and Materials (ASTM) Method E-274-70 (as revised July, 1974) at 40 mph, omitting water delivery as specified in paragraphs 7.1 and 7.2 of that method.

"Stopping distance" means the distance traveled by a vehicle from the start of the brake application to the point where the vehicle stops.

"Split service brake system" means a brake system consisting of two or more subsystems actuated by a single control designed so that a leakage-type failure of a pressure component in a single subsystem (except structural failure of a housing that is common to all subsystems) shall not impair the operation of the other subsystem(s).

S5. Requirements. Each motorcycle shall meet the following requirements under the conditions specified in S6, when tested according to the procedures and in the sequence specified in S7. Corresponding test procedures of S7 are indicated in parentheses. If a motorcycle is incapable of attaining a specified speed, its service brakes shall be capable of stopping the vehicle from the multiple of 5 m.p.h. that is 4 m.p.h. to 8 m.p.h. less than the speed attainable in 1 mile, within stopping distances that do not exceed the stopping distances specified in Table 1.

S5.1 Required equipment—split service brake system. Each motorcycle shall have either a split service brake system or two independently actuated service brake systems.

S5.1.1 Mechanical service brake system. Failure of any component in a mechanical service brake system shall not result in a loss of braking ability in the other service brake system on the vehicle.

S5.1.2 Hydraulic service brake system. A leakage failure in a hydraulic service brake system shall not result in a loss of braking ability in the other service brake system on the vehicle. Each motorcycle equipped with a hydraulic brake system shall have the equipment specified in S5.1.2.1 and S5.1.2.2.

S5.1.2.1 Master cylinder reservoirs. Each master cylinder shall have a separate reservoir for each brake circuit.

with each reservoir filler opening having its own cover, seal, and cover retention device. Each reservoir shall have a minimum capacity equivalent to one and one-half times the total fluid displacement resulting when all the wheel cylinders or caliper pistons serviced by the reservoir move from a new lining, fully retracted position to a fully worn, fully applied position. Where adjustment is a factor, the worst condition of adjustment shall be used for this measurement.

S5.1.2.2 Reservoir labeling. Each motorcycle shall have a brake fluid warning statement that reads as follows, in letters at least three thirty-seconds of an inch high:

Warning: Clean filler cap before removing. Use only _____ fluid from a sealed container. (Inserting the recommended type of brake fluid as specified in 49 CFR 571.116, e.g., DOT 3.)

The lettering shall be:—

(a) Permanently affixed, engraved, or embossed;

(b) Located so as to be visible by direct view, either on or within 4 inches of the brake-fluid reservoir filler plug or cap; and

(c) Of a color that contrasts with its background, if it is not engraved or embossed.

S5.1.3 Split service brake system. In addition to the equipment required by S5.1.2 each motorcycle equipped with a split service brake system shall have a failure indicator lamp as specified in S5.1.3.1.

S5.1.3.1 Failure indicator lamp.

(a) One or more electrically operated service brake system failure indicator lamps that is mounted in front of and in clear view of the driver, and that is activated—

(1) In the event of pressure failure in any part of the service brake system, other than a structural failure of either a brake master cylinder body in a split integral body type master cylinder system or a service brake system failure indicator body, before or upon application of not more than 20 pounds of pedal force upon the service brake.

(2) Without the application of pedal force, when the level of brake fluid in a master cylinder reservoir drops to less than the recommended safe level

specified by the manufacturer or to less than one-half the fluid reservoir capacity, whichever is the greater.

(b) All failure indicator lamps shall be activated when the ignition switch is turned from the "off" to the "on" or to the "start" position.

(c) Except for the momentary activation required by S5.1.3.1(b), each indicator lamp, once activated, shall remain activated as long as the condition exists, whenever the ignition switch is in the "on" position. An indicator lamp activated when the ignition is turned to the "start" position shall be deactivated upon return of the switch to the "on" position unless a failure exists in the service brake system.

(d) Each indicator lamp shall have a red lens with the legend "Brake Failure" on or adjacent to it in letters not less than three thirty-seconds of an inch high that shall be legible to the driver in daylight when lighted.

S5.1.4 Parking brake. Each three-wheeled motorcycle shall be equipped with a parking brake of a friction type with a solely mechanical means to retain engagement.

S5.1.5 Other requirements. The brake system shall be installed so that the lining thickness of drum brake shoes may be visually inspected, either directly or by use of a mirror without removing the drums, and so that disc brake friction lining thickness may be visually inspected without removing the pads.

S5.2 Service Brake System first (preburnish) effectiveness.

S5.2.1 Service brake system. The service brakes shall be capable of stopping the motorcycle from 30 m.p.h. and 60 m.p.h. within stopping distances which do not exceed the stopping distances specified in Column I of Table I (S7.3.1).

S5.2.2 Partial service brake system. Each independently actuated service brake system on each motorcycle shall be capable of stopping the motorcycle from 30 m.p.h. and 60 m.p.h. within stopping distances which do not exceed the stopping distances specified in Column II of Table I (S7.3.2).

S5.3 Service brake system—second effectiveness. The service brakes shall be capable of stopping the motorcycle

from 30 m.p.h., 60 m.p.h., 80 m.p.h., and the multiple of 5 m.p.h. that is 4 m.p.h. to 8 m.p.h. less than the speed attainable in 1 mile if this speed is 95 m.p.h. or greater, within stopping distances that do not exceed the stopping distances specified in Column III of Table I (S7.5).

S5.4 Service brake system—fade and recovery. These requirements do not apply to a motor-driven cycle whose speed attainable in 1 mile is 30 m.p.h. or less.

S5.4.1 Baseline check—minimum and maximum pedal forces. The pedal and lever forces used in establishing the fade baseline check average shall be within the limits specified in S6.10 (S7.6.1).

S5.4.2 Fade. Each motorcycle shall be capable of making 10 fade stops from 60 m.p.h. at not less than 15 f.p.s.p.s. for each stop (S7.6.2).

S5.4.3 Fade recovery. Each motorcycle shall be capable of making five recovery stops with a pedal force that does not exceed 90 pounds, and a hand lever force that does not exceed 55 pounds for any of the first four recovery stops and that for the fifth recovery stop is within plus 20 pounds and minus 10 pounds of the fade test baseline check average force (S7.6.3).

S5.5 Service brake system—final effectiveness. These requirements do not apply to a motor-driven cycle whose speed attainable in 1 mile is 30 mph or less.

S5.5.1 Service brake system. The service brakes shall be capable of stopping the motorcycle in a manner that complies with S5.3 (S7.8.1).

S5.5.2 Hydraulic service brake system—partial failure. In the event of a pressure component leakage failure, other than a structural failure of either a brake master cylinder body in a split integral body type master cylinder system or a service brake system failure indicator body, the remaining portion of the service brake system shall continue to operate and shall be capable of stopping the motorcycle from 30 m.p.h. and 60 m.p.h. within stopping distances that do not exceed the stopping distances specified in Column IV of Table I (S7.8.2).

S5.6 Parking brake system. The parking brake system shall be capable

of holding the motorcycle stationary (to the limits of traction of the braked wheels), for 5 minutes, in both forward and reverse directions, on a 30 percent grade, with an applied force of not more than 90 pounds for a foot-operated system and 55 pounds for a hand-operated system (S7.9).

S5.7 Service brake system—water recovery.

S5.7.1 Baseline check. The pedal and lever forces used in establishing the water recovery baseline check average shall be within the limits specified in S6.10 (S7.10.1).

S5.7.2 Water recovery test. Each motorcycle shall be capable of making five recovery stops with a pedal force that does not exceed 90 pounds, and a hand lever force that does not exceed 55 pounds, for any of the first four recovery stops, and that for the fifth recovery stop, is within plus 20 pounds and minus 10 pounds of the baseline check average force (S7.10.2).

S5.8 Service brake system design durability. Each motorcycle shall be capable of completing all braking requirements of S5 without detachment of brake linings from the shoes or pad, detachment or fracture of any brake system components, or leakage of fluid or lubricant at the wheel cylinder, and master cylinder reservoir cover, seal, or retention device (S7.11).

S6.1 Vehicle weight. Motorcycle weight is unloaded vehicle weight plus 200 pounds (including driver and instrumentation), with the added weight distributed in the saddle or carrier if so equipped.

S6.2 Tire inflation pressure. Tire inflation pressure is the pressure recommended by the manufacturer for the vehicle weight specified in paragraph S6.1.

S6.3 Transmission. Unless otherwise specified, all stops are made with the clutch disengaged.

S6.4 Engine. Engine idle speed and ignition timing settings are according to the manufacturer's recommendations. If the vehicle is equipped with an adjustable engine speed governor, it is adjusted according to the manufacturer's recommendation.

S6.5 Ambient temperature. The ambient temperature is between 32° F. and 100° F.

S6.6 Wind velocity. The wind velocity is zero.

S6.7 Road surface. Road tests are conducted on level roadway having a skid number of 81. The roadway is 8 feet wide for two-wheeled motorcycles, and overall vehicle width plus 5 feet for three-wheeled motorcycles. The parking brake test surface is clean, dry, smooth portland cement concrete.

S6.8 Vehicle position. The motorcycle is aligned in the center of the roadway at the start of each brake application. Stops are made without any part of the motorcycle leaving the roadway and without lockup of any wheel.

S6.9 Thermocouples. The brake temperature is measured by plug-type thermocouples installed in the approximate center of the facing length and width of the most heavily loaded shoe or disc pad, one per brake, as shown in Figure 1.

S6.10 Brake actuation forces. Except for the requirements of the fifth recovery stop in S5.4.3 and S5.7.2 (S7.6.3 and S7.10.2) the hand lever force is not less than five and not more than 55 pounds and the foot pedal force is not less than 10 and not more than 90 pounds. The point of initial application of the lever forces is 1.2 inches from the end of the brake lever grip. The direction of the force is perpendicular to the handle grip on the plane along which the brake lever rotates, and the point of application of the pedal force is the center of the foot contact pad of the brake pedal. The direction of the force is perpendicular to the foot contact pad on the plane along which the brake pedal rotates, as shown in Figure 2.

S7. Test procedures and sequence. Each motorcycle shall be capable of meeting all the requirements of this standard when tested according to the procedures and in the sequence set forth below without replacing any brake system part, or making any adjustments to the brake system other than as permitted in S7.4. A motorcycle shall be deemed to comply with S5.2, S5.3 and S5.5 if at least one of the stops specified in S7.3, S7.5 and S7.8 is made within the stopping distances specified in Table 1.

S7.1 Braking warming. If the initial brake temperature for the first

stop in a test procedure (other than S7.10) has not been reached, heat the brakes to the initial brake temperature by making up to 10 stops from 30 m.p.h. at a deceleration of not more than 10 f.p.s.p.s. On independently operated brake systems, the coldest brake shall be within 10° F. of the hot-test brake.

S7.2 Pretest instrumentation check. Conduct a general check of test instrumentation by making not more than 10 stops from a speed of not more than 30 m.p.h. at a deceleration of not more than 10 f.p.s.p.s. If test instrument repair, replacement, or adjustment is necessary, make not more than 10 additional stops after such repair, replacement or adjustment.

S7.3 Service brake system—first (preburnished) effectiveness test.

S7.3.1 Service brake system. Make six stops from 30 m.p.h. and then six stops from 60 m.p.h. with an initial brake temperature between 130° F. and 150° F.

S7.3.2 Partial service brake system. For a motorcycle with two independently actuated service brake systems, repeat S7.3.1 using each service brake system individually.

S7.4 Service brake system—burnish procedure. Burnish the brakes by making 200 stops from 30 m.p.h. at 12 f.p.s.p.s. The braking interval shall be either the distance necessary to reduce the initial brake temperature to between 130° F. and 150° F. or 1 mile, whichever occurs first. Accelerate at maximum rate to 30 m.p.h. immediately after each stop and maintain that speed until making the next stop. After burnishing adjust the brakes in accordance with the manufacturer's recommendation.

S7.5 Service brake system—second effectiveness test. Repeat S7.3.1. Then, make four stops from 80 m.p.h. and four stops from the multiple of 5 m.p.h. that is 4 m.p.h. to 8 m.p.h. less than the speed attainable in 1 mile if that speed is 95 m.p.h. or greater.

S7.6 Service brake system—fade and recovery test. These requirements do not apply to a motor-driven cycle whose speed attainable in 1 mile is 30 m.p.h. or less.

S7.6.1 Baseline check stops. Make three stops from 30 m.p.h. at 10 to 11

f.p.s.p.s. for each stop. Compute the average of the maximum brake pedal forces and the maximum brake lever forces required for the three stops.

S7.6.2 Fade stops. Make 10 stops from 60 m.p.h. at not less than 15 f.p.s.p.s. for each stop. The initial brake temperature before the first brake application shall be between 130° F. and 150° F. Initial brake temperatures before brake applications for subsequent stops shall be those occurring at the distance intervals. Attain the required deceleration as quickly as possible and maintain at least this rate for not less than three-fourths of the total stopping distance for each stop. The interval between the starts of service brake applications shall be 0.4 mile. Drive 1 mile at 30 m.p.h. after the last fade stop and immediately conduct the recovery test specified in S7.6.3.

S7.6.3 Recovery test. Make five stops from 30 m.p.h. at 10 to 11 f.p.s.p.s. for each stop. The braking interval shall not be more than 1 mile. Immediately after each stop accelerate at maximum rate to 30 m.p.h. and maintain that speed until making the next stop.

S7.7 Service brake system—reburnish. Repeat S7.4 except make 35 burnish stops instead of 200 stops. Brakes may be adjusted after reburnish if no tools are used. These requirements do not apply to a motor-driven cycle whose speed attainable in 1 mile is 30 m.p.h. or less.

S7.8 Service brake system—final effectiveness test. These requirements do not apply to a motor-driven cycle whose speed attainable in 1 mile is 30 m.p.h. or less.

S7.8.1 Service brake system. Repeat S7.5 including S7.3.1.

S7.8.2 Partial service brake system test. Alter the service brake system on three-wheeled motorcycles to induce a complete loss of braking in any one subsystem. Determine the line pressure or pedal force necessary to cause the brake system failure indicator to operate. Make six stops from 30 m.p.h. and then six stops from 60 m.p.h. with an initial brake temperature between 130° F. and 150° F. Repeat for each subsystem. Determine that the brake failure indicator is operating when the

master cylinder fluid level is less than the level specified in S5.1.3.1(a)(2), and that it complies with S5.1.3.1(c). Check for proper operation with each reservoir in turn at a low level. Restore the service brake system to normal at completion of this test.

S7.9 Parking brake test. Starting with an initial brake temperature of not more than 150° F., drive the motorcycle downhill on the 30 percent grade with the longitudinal axis of the motorcycle in the direction of the grade. Apply the service brakes with a force not exceeding 90 pounds to stop the motorcycle and place the transmission in neutral. Apply the parking brake by exerting a force not exceeding those specified in S5.6. Release the service brake and allow the motorcycle to remain at rest (to the limit of traction of the braked wheels) for 5 minutes. Repeat the test with the motorcycle parked in the reversed (uphill) position on the grade.

S7.10 Service brake system—water recovery test.

S7.10.1 Baseline check stops. Make three stops from 30 m.p.h. at 10 to 11 f.p.s.p.s. for each stop. Compute the average of the maximum brake pedal forces and of the maximum brake lever forces required for the three stops.

S7.10.2 Wet brake recovery stops. Completely immerse the rear brake assembly of the motorcycle in water for 2 minutes with the brake fully released. Next completely immerse the front brake assembly of the motorcycle in water for 2 minutes with the brake fully released. Perform the entire wetting procedure in not more than 7 minutes. Immediately after removal of the front brake from water, accelerate at a maximum rate to 30 mi/h without a brake application. Immediately upon reaching that speed make five stops, each from 30 mi/h at 10 to 11 ft/s² for each stop. After each stop (except the last) accelerate the motorcycle immediately at a maximum rate to 30 mi/h and begin the next stop.

S7.11 Final inspection. Upon completion of all the tests inspect the brake system in an assembled condition, for compliance with the brake

lining inspection requirements. Disassemble all brakes and inspect:

(a) The entire brake system for detachment or fracture of any component.

(b) Brake linings for detachment from the shoe or pad.

(c) Wheel cylinder, master cylinder, and axle seals for fluid or lubricant leakage.

(d) Master cylinder for reservoir capacity and retention device.

(e) Master cylinder label for compliance with S5.1.2.2.

TABLE I—STOPPING DISTANCES FOR EFFECTIVENESS, FADE AND PARTIAL SYSTEM TESTS

Vehicle test speed, m.p.h.	Stopping distance, feet—Effectiveness tests			
	Preburnish effectiveness total system (S5.2.1)—I	Preburnish effectiveness partial mechanical systems (S5.2.2)—II	Effectiveness total system (S5.4) (S5.7.1)—III	Effectiveness partial hydraulic systems (S5.7.2)—IV
15	13	30	11	25
20	24	54	19	44
25	37	84	30	68
30	54	121	43	97
35	74	165	58	132
40	96	216	75	173
45	121	273	95	218
50	150	337	128	264
55	181	407	155	326
60	216	484	185	388
65			217	455
70			264	527
75			303	606
80			345	689
85			389	778
90			484	872
95			540	971

TABLE I—STOPPING DISTANCES FOR EFFECTIVENESS, FADE AND PARTIAL SYSTEM TESTS—Continued

Vehicle test speed, m.p.h.	Stopping distance, feet—Effectiveness tests			
	Preburnish effectiveness total system (S5.2.1)—I	Preburnish effectiveness partial mechanical systems (S5.2.2)—II	Effectiveness total system (S5.4) (S5.7.1)—III	Effectiveness partial hydraulic systems (S5.7.2)—IV
100			598	1076
105			659	1188
110			723	1302
115			791	1423
120			861	1549

TABLE II—BRAKE TEST SEQUENCE AND REQUIREMENTS

Sequence L.C.	Test procedure	Requirements
1. Instrumentation check	S7.2	
2. First (Preburnish) effectiveness test:		
(a) Service brake system	S7.3.1	S5.2.1
(b) Partial service brake system	S7.3.2	S5.2.2
3. Burnish procedure	S7.4	
4. Second effectiveness test	S7.5	S5.3
5. First fade and recovery test	S7.6	S5.4
6. Reburnish	S7.7	
7. Final effectiveness test:		
(a) Service brake system	S7.8.1	S5.5.1
(b) Partial service brake system	S7.8.2	S5.5.2
8. Parking brake test (three-wheeled motorcycles only)	S7.9	S5.6
9. Water recovery test	S7.10	S5.7
10. Design durability	S7.11	S5.8

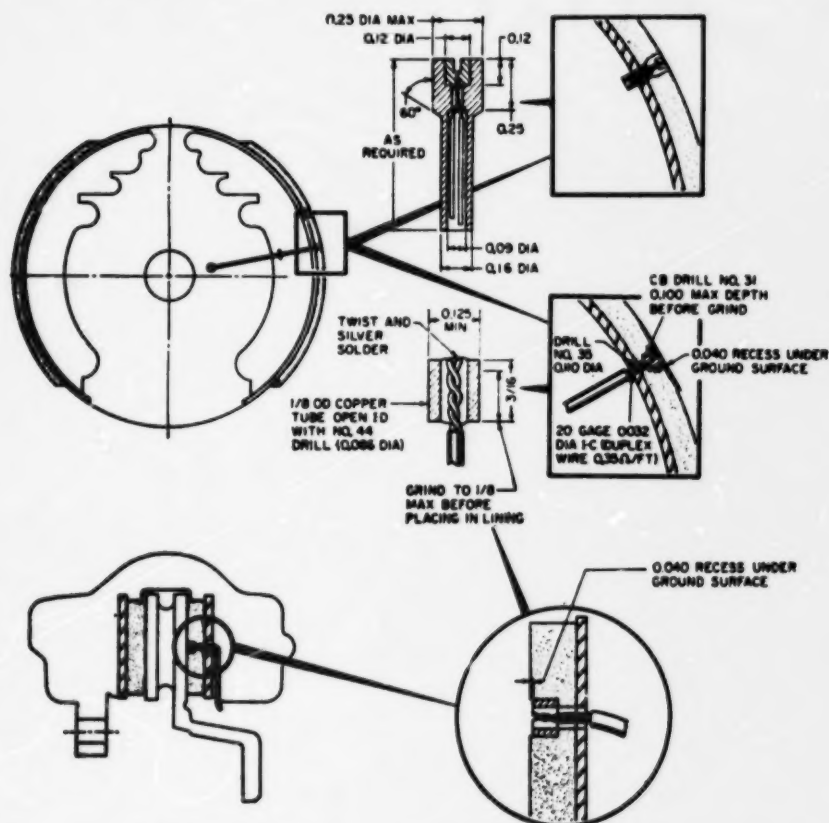
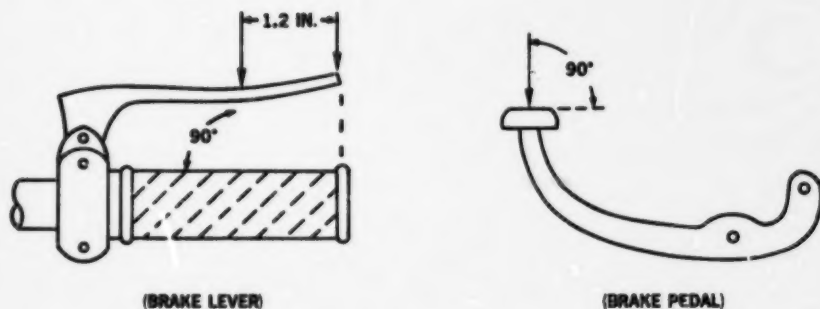


FIGURE 1 - TYPICAL PLUG TYPE THERMOCOUPLE INSTALLATIONS

FIG. 2 DIRECTION OF FORCE



(Delegation of authority at 38 FR 12147; secs. 102, 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1391, 1392, 1407); delegations of authority at 49 CFR 1.50 and 49 CFR 501.8)

[37 FR 5034, Mar. 9, 1972, as amended at 37 FR 11974, June 16, 1972; 38 FR 14753, June 5, 1973; 39 FR 32914, Sept. 12, 1974; 39 FR 43075, Dec. 10, 1974; 41 FR 24593, June 17, 1976; 43 FR 9606, Mar. 9, 1978; 43 FR 46548, Oct. 10, 1978]

§ 571.123 Standard No. 123; Motorcycle controls and displays.

S1. Scope. This standard specifies requirements for the location, operation, identification, and illumination of motorcycle controls and displays, and requirements for motorcycle stands and footrests.

S2. Purpose. The purpose of this standard is to minimize accidents caused by operator error in responding to the motoring environment, by standardizing certain motorcycle controls and displays.

S3. Application. This standard applies to motorcycles equipped with handlebars, except for motorcycles that are designed, and sold exclusively for use by law enforcement agencies.

S4. Definitions. "Clockwise" and "counterclockwise" mean opposing directions of rotation around the following axes, as applicable.

(a) The operational axis of the ignition control, viewed from in front of the ignition lock opening;

(b) The axis of the right handlebar on which the twist-grip throttle is located, viewed from the end of that handlebar;

(c) The axis perpendicular to the center of the speedometer, viewed from the operator's normal eye position.

S5. Requirements.

S5.1. Each motorcycle shall be equipped with a supplemental engine stop control, located and operable as specified in Table 1.

S5.2 Each motorcycle to which this standard applies shall meet the following requirements:

S5.2.1 Control location and operation. If any item of equipment listed in Table 1, Column 1, is provided, the control for such item shall be located

as specified in Column 2, and operable as specified in Column 3. Each control located on a right handlebar shall be operable by the operator's right hand throughout its full range without removal of the operator's right hand from the throttle. Each control located on a left handlebar shall be operable by the operator's left hand throughout its full range without removal of the operator's left hand from the handgrip. If a motorcycle with an automatic clutch is equipped with a supplemental rear brake control, the control shall be located on the left handlebar. If a motorcycle is equipped with self-proportioning or antilock braking devices utilizing a single control for front and rear brakes, the control shall be located and operable in the same manner as a rear brake control.

S5.2.2 Display illumination and operation. If an item of equipment listed in Table 2, Column 1, is provided, the display for such item shall be visible to a seated operator under daylight conditions, shall illuminate as specified in Column 2, and shall operate as specified in Column 3.

S5.2.3 Control and display identification. If an item of equipment in Table 3, Column 1, is provided, the item and its operational function shall be identified by:

(a) A symbol substantially in the form shown in Column 3; or

(b) Wording shown in both Column 2 and Column 4; or

(c) A symbol substantially in the form shown in Column 3 and wording shown in both Column 2 and Column 4.

The abbreviations "M.P.H.", "r/min", "Hi", "Lo", "L", "R", and "Res" appearing in Column 2 and Column 4 may be spelled in full. Symbols and words may be provided for equipment items where none are shown in Column 2, Column 3, and Column 4. Any identification provided shall be placed on or adjacent to the control or display position, and shall appear upright to the operator.

S5.2.4 Stands. A stand shall fold rearward and upward if it contacts the ground when the motorcycle is moving forward.

S5.2.5 Footrests. Footrests shall be provided for each designated seating position. Each footrests for a passenger other than an operator shall fold rearward and upward when not in use.

TABLE 1—MOTORCYCLE CONTROL LOCATION AND OPERATION REQUIREMENTS

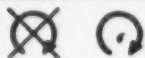
Equipment control—Column 1	Location—Column 2	Operation—Column 3
1. Manual clutch or integrated clutch and gear change	Left handlebar	Squeeze to disengage clutch.
2. Foot operated gear change	Left foot control	An upward motion of the operator's toe shifts transmission toward lower numerical gear ratios (commonly referred to as "higher gears"), and a downward motion toward higher numerical gear ratios (commonly referred to as "lower gears"). If three or more gears are provided it shall not be possible to shift from the highest gear directly to the lowest gear, or vice versa.
3. Headlamp upper-lower beam control	Left handlebar	Up for upper beam, down for lower beam. If combined with the headlight on-off switch, means shall be provided to prevent inadvertent actuation of the "off" function.
4. Horn	do	Push to activate
5. Turn signal lamps	Handlebars	"Off"—counterclockwise from other positions.
6. Ignition		"On"—Control downward; "Off"—Control forward (if control rotates around a transverse axis) or Horizontal—Left or Right (if control rotates around a longitudinal axis); "Reserve On"—(if provided) Control upward.
7. Manual fuel shutoff control		Self-closing to idle in a clockwise direction after release of hand.
8. Twist-grip throttle	Right handlebar	
9. Supplemental engine stop	do	
10. Front wheel brake	do	Squeeze to engage.
11. Rear wheel brakes	Right foot control ¹	Depress to engage.
	Left handlebar permissible for motor-driven cycles.	

¹ See S5.2.1 for requirements for vehicles with a single control for front and rear brakes, and with a supplemental rear brake control.

TABLE 2—MOTORCYCLE DISPLAY ILLUMINATION AND OPERATION REQUIREMENTS

Display—Column 1	Illumination—Column 2	Operation—Column 3
1. Speedometer	Yes	The display is illuminated whenever the headlamp is activated.
2. Neutral indication	Green display lamp	The display lamp illuminates when the gear selector is in neutral position.

Table 3
Motorcycle Control and Display Identification Requirements

No.	Column 1	Column 2	Column 3	Column 4
	Equipment	Control and Display Identification Word	Control and Display Identification Symbol	Identification at Appropriate Position of Control or Display
1	Ignition	Ignition		Off
2	Supplemental Engine Stop (Off, Run)	Engine Stop		Off, Run
3	Manual Choke OR Mixture Enrichment	Choke OR Enrichener		
4	Electric Starter			Start ¹
5	Headlamp Upper-Lower Beam Control	Lights		Hi, Lo
6	Horn	Horn		
7	Turn Signal	Turn		L, R
8	Speedometer	M.P.H.		M.P.H. ⁴
9	Neutral Indicator	Neutral		
10	Upper Beam Indicator	High Beam		
11	Tachometer	R.P.M. OR r/min.		
12	Fuel Tank Shutoff Valve (Off, On, Res.)	Fuel		Off, On, Res.

¹ Required only if electric starter is separate from ignition switch.

² Framed areas may be filled.

³ The pair of arrows is a single symbol. When the indicators for left and right turn operate independently however, the two arrows will be considered separate symbols and may be spaced accordingly.

⁴ M.P.H. increase in a clockwise direction. Major graduations and numerals appear at 10 (mph intervals, minor graduations at the 5 mph intervals. (37 F.R. 17474—August 29, 1972. Effective: 9/1/74)

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); delegations of authority at 49 CFR 1.50 and 501.7)

[37 FR 7207, Apr. 12, 1972, as amended at 37 FR 17475, Aug. 29, 1972; 39 FR 32915, Sept. 12, 1974; 48 FR 42819, Sept. 20, 1983; 49 FR 35381, Sept. 7, 1984; 49 FR 35504, Sept. 10, 1984]

§ 571.124 Standard No. 124: Accelerator control systems.

S1. Scope. This standard establishes requirements for the return of a vehicle's throttle to the idle position when the driver removes the actuating force from the accelerator control, or in the event of a severance or disconnection in the accelerator control system.

S2. Purpose. The purpose of this standard is to reduce deaths and injuries resulting from engine overspeed caused by malfunctions in the accelerator control system.

S5. Application. This standard applies to passenger cars, multi-purpose passenger vehicles, trucks, and buses.

S4. Definitions.

S4.1 "Driver-operated accelerator control system" means all vehicle components, except the fuel metering device, that regulate engine speed in direct response to movement of the driver-operated control and that return the throttle to the idle position upon release of the actuating force.

"Fuel metering device" means the carburetor, or in the case of certain engines the fuel injector, fuel distributor or fuel injection pump.

"Throttle" means the component of the fuel metering device that connects to the driver-operated accelerator control system and that by input from the driver-operated accelerator control system controls the engine speed.

"Idle position" means the position of the throttle at which it first comes in contact with an engine idle speed control appropriate for existing conditions according to the manufacturers' recommendations. These conditions include, but are not limited to, engine speed adjustments for cold engine, air conditioning, and emission control, and the use of throttle setting devices.

"Ambient temperature" means the surrounding air temperature, at a distance such that it is not significantly affected by heat from the vehicle under test.

S4.2 In the case of vehicles powered by electric motors, the words "throttle" and "idle" refer to the motor speed controller and motor shutdown, respectively.

S5. Requirements. The vehicle shall meet the following requirements when the engine is running under any load

condition, and at any ambient temperature between -40° F. and $+125^{\circ}$ F. after 12 hours of conditioning at any temperature within that range.

S5.1 There shall be at least two sources of energy capable of returning the throttle to the idle position within the time limit specified by S5.3 from any accelerator position or speed whenever the driver removes the opposing actuating force. In the event of failure of one source of energy by a single severance or disconnection, the throttle shall return to the idle position within the time limits specified by S5.3, from any accelerator position or speed whenever the driver removes the opposing actuating force.

S5.2 The throttle shall return to the idle position from any accelerator position or any speed of which the engine is capable whenever any one component of the accelerator control system is disconnected or severed at a single point. The return to idle shall occur within the time limit specified by S5.3, measured either from the time of severance or disconnection or from the first removal of the opposing actuating force by the driver.

S5.3 Except as provided below, maximum time to return to idle position shall be 1 second for vehicles of 10,000 pounds or less GVWR, and 2 seconds for vehicles of more than 10,000 pounds GVWR. Maximum time to return to idle position shall be 3 seconds for any vehicle that is exposed to ambient air at 0° to -40° F. during the test or for any portion of the 12-hour conditioning period.

[38 FR 2980, Jan. 31, 1973]

§ 571.125 Standard No. 125: Warning devices.

S1. Scope. This standard establishes requirements for devices, without self-contained energy sources, that are designed to be carried in motor vehicles and used to warn approaching traffic of the presence of a stopped vehicle, except for devices designed to be permanently affixed to the vehicle.

S2. Purpose. The purpose of this standard is to reduce deaths and injuries due to rear end collisions between moving traffic and disabled vehicles.

S3. Application. This standard applies to devices, without self-contained energy sources, that are designed to be carried in motor vehicles and used to warn approaching traffic of the presence of a stopped vehicle, except for devices designed to be permanently affixed to the vehicle.

S4. Definitions. "Entrance angle" means the angle having as its sides the line through the center, and normal to the face, of the object to be tested, and the line from the center of the object to the center of the source of illumination (Figure 2).

"Fluorescent" means the property of emitting visible light due to the absorption of radiation of a shorter wavelength which may be outside the visible spectrum.

"Observation angle" means the angle having as its sides the line from the observation point to the center of the object to be tested and the line from the center of that object to the center of the source of illumination (Figure 2).

"Reflex reflective" means reflective of light in directions close to the direction of incident light, over a wide range of variations in the direction of incident light.

S5. Requirements.

S5.1 Equipment.

S5.1.1 Reflex reflective material and fluorescent material that meet the requirements of this standard shall be affixed to both faces of the warning device. Alternatively, a dual purpose orange fluorescent and red reflective material that meets the requirements of this standard (hereafter referred to as "dual purpose material") may be affixed to both faces in places of the reflective and fluorescent materials.

S5.1.2 Each warning device shall be protected from damage and deterioration—

(a) By enclosure in an opaque protective reusable container, except that two or three warning devices intended to be sold for use as a set with a single vehicle may be enclosed in a single container; or

(b) By secure attachment to any light-tight, enclosed, and easily accessible compartment of a new motor ve-

hicle with which it is supplied by the vehicle manufacturer.

S5.1.3 The warning device shall be designed to be erected, and replaced in its container, without the use of tools.

S5.1.4 The warning device shall be permanently and legibly marked with:

(a) Name of manufacturer;

(b) Month and year of manufacture, which may be expressed numerically, as "6/72"; and

(c) The symbol DOT, or the statement that the warning device complies with all applicable Federal motor vehicle safety standards.

S5.1.5 Each warning device shall have instructions for its erection and display.

(a) The instructions shall be either indelibly printed on the warning device or attached in such a manner that they cannot be easily removed.

(b) Instructions for each warning device shall include a recommendation that the driver activate the vehicular hazard warning signal lamps before leaving the vehicle to erect the warning device.

(c) Instructions shall include the illustration depicted in Figure 3 indicating recommended positioning.

S5.2 Configuration.

S5.2.1 When the warning device is erected on level ground:

(a) Part of the warning device shall form an equilateral triangle that stands in a plane not more than 10° from the vertical, with the lower edge of the base of the triangle horizontal and not less than 1 inch above the ground.

(b) None of the required portion of the reflective material and fluorescent material shall be obscured by any other part of the warning device except for any portion of the material over which it is necessary to provide fasteners, pivoting beads or other means to allow collapsibility or support of the device. In any event, sufficient reflective and fluorescent material shall be used on the triangle to meet the requirements of S5.4 and S5.5.

S5.2.2 Each of the three sides of the triangular portion of the warning device shall not be less than 17 and not more than 22 inches long, and not

less than 2 and not more than 3 inches wide (Figure 1).

S5.2.3 Each face of the triangular portion of the warning device shall have an outer border of red reflex reflective material of uniform width and not less than 0.75 and not more than 1.75 inches wide, and an inner border of orange fluorescent material of uniform width and not less than 1.25 and not more than 1.30 inches wide (Figure 1). However, this requirement shall not apply if the dual purpose material is used.

S5.2.4 Each vertex of the triangular portion of the warning device shall have a radius of not less than 0.25 inch and not more than 0.50 inch.

S5.2.5 All edges shall be rounded or chamfered, as necessary, to reduce the possibility of cutting or harm to the user.

S5.2.6 The device shall consist entirely of the triangular portion and attachments necessary for its support and enclosure, without additional visible shapes or attachments.

S5.3 Color.

S5.3.1 The color of the red reflex reflective material on the warning device shall have the following characteristics, both before and after the warning device has been conditioned in accordance with S6.1, when the source of illumination is a lamp with a tungsten filament operating at 2856° Kelvin color temperature. Expressed in terms of the International Commission on Illumination (CIE) 1931 standard colorimetric observer system (CIE chromaticity diagram, Figure 4), the chromaticity coordinates of the red reflex reflective material shall lie within the region bounded by the spectrum locus and the lines on the diagram defined by the following equations:

Boundary	Equations
Yellow	$y = 0.33$
White	$x + y = 0.98$

S5.3.2 The color of the orange fluorescent material on the warning device shall have the following characteristics, both before and after the warning device has been conditioned in accordance with S6.1, when the source of il-

lumination is a 150-watt high pressure xenon compact arc lamp. Expressed in terms of the International Commission on Illumination (CIE) 1931 standard colorimetric observer system, the chromaticity coordinates of the orange fluorescent material shall lie within the region bounded by the spectrum locus and the lines on the diagram defined by the following equations:

Boundary	Equations
Yellow	$y = 0.49x + 0.17$
White	$x + y = 0.93$
Red	$y = 0.35$

The 150-watt high pressure xenon compact arc lamp shall illuminate the sample using the unmodified spectrum at an angle of incidence of 45° and an angle of observation of 90°. If dual purpose material is being tested, it shall be illuminated by a 150-watt high pressure xenon compact arc lamp, whose light is diffused by an integrating sphere.

S5.4 *Reflectivity.* When the red reflex reflective material on the warning device is tested in accordance with S6.2, both before and after the warning device has been conditioned in accordance with S6.1, its total candlepower per incident foot candle shall be not less than the values specified in Table I for each of the listed entrance angles.

S5.5 *Luminance.* When the orange fluorescent material on the warning device is tested in accordance with S6.3, both before and after the warning device has been conditioned in accordance with S6.1, it shall have a minimum relative luminance of 25 percent of a flat magnesium oxide surface and a minimum product of that relative luminance and width in inches of 44.

S5.6 *Stability.* When the warning device is erected on a horizontal brushed concrete surface both with and against the brush marks and subjected to a horizontal wind of 40 miles per hour in any direction for 3 minutes—

(a) No part of it shall slide more than 3 inches from its initial position;

(b) Its triangular portion shall not tilt to a position that is more than 10° from the vertical; and

(c) Its triangular position shall not turn through a horizontal angle of more than 10° in either direction from the initial position.

S5.7 Durability. When the warning device is conditioned in accordance with S6.1, no part of the warning device shall become warped or separated from the rest of the warning device.

S6. Test Procedures.

S6.1 Conditions.

S6.1.1 Submit the warning device to the following conditioning sequence, returning the device after each step in the sequence to ambient air at 68°F . for at least 2 hours.

(a) Minus 40°F . for 16 hours in a circulating air chamber using ambient air which would have not less than 30 percent and not more than 70 percent relative humidity at 70°F ;

(b) 150°F . for 16 hours in a circulating air oven using ambient air which would have not less than 30 percent and not more than 70 percent relative humidity at 70°F ;

(c) 100°F . and 90 percent relative humidity for 16 hours;

(d) Salt spray (fog) test in accordance with American Society of Testing and Materials Standard B-117, Standard Method of Salt Spray (fog) testing, August 1964, except that the test shall be for 4 hours rather than 40 hours; and

(e) Immersion for 2 hours in water at a temperature of 100°F .

S6.2 Reflectivity Test. Test the red reflex reflective materials as follows:

(a) Unless dual purpose material is used, prevent the orange fluorescent material from affecting the photometric measurement of the reflectivity of the red reflex reflective material, either by separation or masking.

(b) Use a lamp with a tungsten filament operating at 2856°Kelvin color temperature as the source of illumination.

(c) Place the source of illumination 100 feet from the red reflex reflective material (Figure 2).

(d) Place the observation point directly above the source of illumination (Figure 2).

(e) Calculate the total candlepower per incident foot candle of the red reflex reflective material at each of the entrance and observation angles specified in Table 1.

S6.3 Luminance Test. Test the orange fluorescent material as follows:

(a) Unless dual purpose material is used, prevent the red reflex reflective material from affecting the photometric measurement of the luminance of the orange fluorescent material.

(b) Using a 150-watt high pressure xenon compact arc lamp as the light source, illuminate the test sample at an angle of incidence of 45° and an angle of observation of 90° . If dual purpose material is being tested, illuminate the sample diffusely through an integrating sphere.

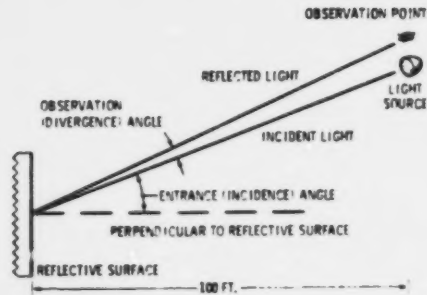
(c) Measure the luminance of the material at a perpendicular viewing angle, with no ray of the viewing beam more than 5° from the perpendicular to the specimen.

(d) Repeat the procedure for a flat magnesium oxide surface, and compute the quotient (percentage) of the luminance of the material relative to that of the magnesium oxide surface.

WARNING DEVICE

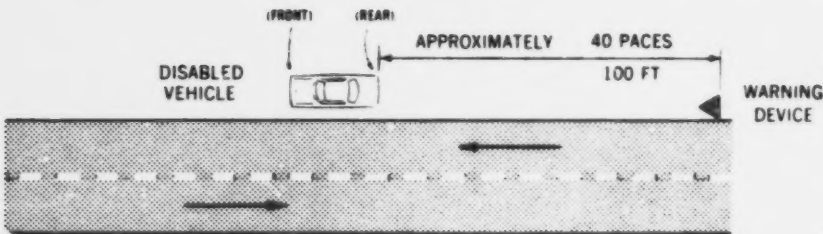


FIG. 1. DIMENSIONS OF WARNING DEVICE (INCHES)



REFLECTIVITY TEST DIAGRAM

Figure 2



RECOMMENDED WARNING DEVICE POSITIONING

Figure 3

**TOTAL MINIMUM CANDLEPOWER
PER INCIDENT FOOT CANDLE**

Observation Angles - Degrees	Entrance Angles - Degrees						
	0	10 up	10 down	20 left	20 right	30 left	30 right
0.2	80	80	80	40	40	8.0	8.0
1.5	0.8	0.8	0.8	0.4	0.4	0.08	0.08

TABLE 1

S5. Requirements.**S5.1 Slide-in camper.**

S5.1.1 Labels. Each slide-in camper shall have permanently affixed to it, in a manner that it cannot be removed without defacing or destroying it, in a plainly visible location on an exterior rear surface other than the roof, steps, or bumper extension, a label containing the following information in the English language lettered in block capitals and numerals not less than three thirty-seconds of an inch high, of a color contrasting with the background, in the order shown below and in the form illustrated in Figure 1.

MPD. BY: (CAMPER MANUFACTURER'S NAME)

(MONTH AND YEAR OF MANUFACTURE)

THIS CAMPER CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE

CAMPER WEIGHT IS — LBS. MAXIMUM WHEN IT CONTAINS STANDARD EQUIPMENT, — GAL. OF WATER — LBS. OF BOTTLED GAS, AND — CUBIC FT. REFRIGERATOR (OR ICEBOX WITH — LBS. OF ICE, AS APPLICABLE). CONSULT OWNER'S MANUAL (OR DATA SHEET AS APPLICABLE) FOR WEIGHTS OF ADDITIONAL OR OPTIONAL EQUIPMENT.

VEHICLE IDENTIFICATION NUMBER)

FIGURE 1. LABEL FOR CAMPERS

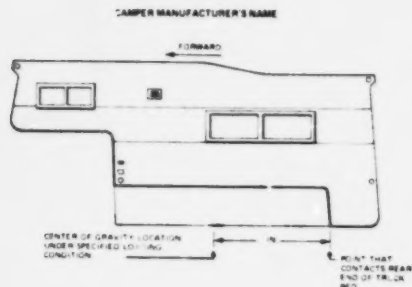


FIGURE 2. CAMPER CENTER OF GRAVITY INFORMATION

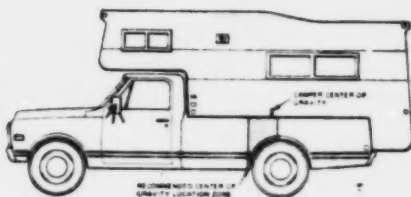


FIGURE 3. EXAMPLE OF PROPER TRUCK AND CAMPER MATCH

(a) Name of camper manufacturer. The full corporate or individual name of the actual assembler of the camper shall be spelled out, except that such abbreviations as "Co." or "Inc." and their foreign equivalents, and the first and middle initials of individuals may be used. The name of the manufacturer shall be preceded by the word "manufactured By" or "Mfd By."

(b) Month and year of manufacture. It may be spelled out (e.g. "June 1973") or expressed in numerals (e.g. "6/73").

(c) The statement: "This camper conforms to all applicable Federal Motor Vehicle Safety Standards in effect on the date of manufacture shown above." The expression "U.S." or "U.S.A." may be inserted before the word "Federal."

(d) The following statement completed as appropriate:

"Camper weight is — Lbs. Maximum When It Contains Standard Equipment, — Gal. of Water, — Lbs. of Bottled Gas, and — Cubic Ft. Refrigerator (or Icebox with — Lbs. of Ice, as applicable). Consult Owner's Manual (or Data Sheet as applicable) for Weights of Additional or Optional Equipment.

"Gal. of water" refers to the volume of water necessary to fill the camper's fresh water tanks to capacity. "Lbs. of Bottled Gas" refers to the weight of gas necessary to fill the camper's bottled gas tanks to capacity. The statement regarding a "Refrigerator" or "Icebox" refers to the capacity of the refrigerator with which the vehicle is equipped or the weight of the ice with which the icebox may be filled. Any of these items may be omitted from the statement, if the corresponding accessories are not included with the

camper, provided that the omission is noted in the camper owner's manual as required in paragraph S5.1.2(a).

(e) *Vehicle identification number.* Each slide-in camper shall have a number assigned by its manufacturer for identification purposes consisting of arabic numerals, roman letters, or both. No two slide-in campers manufactured by the same manufacturer within any 10-year period shall have the same vehicle identification number.

S5.1.2 *Owner's manual.* Each slide-in camper manufacturer shall provide with each camper a manual or other document containing the information specified in S5.1.2 (a) through (d). The information in paragraphs S5.1.2 (e) and (f) shall also be provided with each camper manufactured on or after October 1, 1973.

(a) The statement and information provided on the certification label as specified in paragraph S5.1.1. Instead of the information required by paragraphs (b), (c), and (e) of paragraph S5.1.1, a manufacturer may use the statements, "See camper certification label (located on camper's rear exterior surface) for month and year of manufacture and for the Vehicle Identification Number;" and "This camper conforms to all applicable Federal Motor Vehicle Safety Standards in effect on the date of manufacture". If water, bottled gas, or refrigerator (icebox) has been omitted from this statement, the manufacturer's information shall note such omission and advise that the weight of any such item when added to the camper, should be added to the maximum camper weight figure used in selecting an appropriate truck.

(b) A list of other additional or optional equipment that the camper is designed to carry, and the maximum weight of each if its weight is more than 20 pounds when installed.

(c) The statement: "To estimate the total cargo load that will be placed on a truck, add the weight of all passengers in the camper, the weight of supplies, tools, and all other cargo, the weight of installed additional or optional camper equipment, and the manufacturer's camper weight figure. Select a truck that has a cargo weight

rating that is equal to or greater than the total cargo load of the camper, and whose manufacturer recommends a cargo center of gravity zone that will contain the camper's center of gravity when it is installed." Until October 1, 1973, the phrase "total load" may be used instead of "total cargo load."

(d) The statements: "When loading this camper store heavy gear first, keeping it on or close to the camper floor. Place heavy things far enough forward to keep the loaded camper's center of gravity within the zone recommended by the truck manufacturer. Store only light objects on high shelves. Distribute weight to obtain even side-to-side balance of the loaded vehicle. Secure loose items to prevent weight shifts that could affect the balance of your vehicle. When the truck-camper is loaded, drive to a scale and weigh on the front and on the rear wheels separately to determine axle loads. The load on an axle should not exceed its gross axle weight rating (GAWR). The total of the axle loads should not exceed the gross vehicle weight rating (GVWR). These weight ratings are given on the vehicle certification label that is located on the left side of the vehicle, normally the dash panel, hinge pillar, door latch post, or door edge next to the driver on trucks manufactured on or after January 1, 1972. If weight ratings are exceeded, move or remove items to bring all weights below the ratings.

(e) A picture showing the location of the longitudinal center of gravity of the camper within an accuracy of 2 inches under the loaded condition specified in paragraph S5.1.1(d), in the manner illustrated in figure 2. Until October 1, 1973, the phrase "Mount at Aft End of Truck Cargo Area" may be used in figure 2 instead of "Point That Contacts Rear End of Truck Bed."

(f) A picture showing the proper match of a truck and slide-in camper in the form illustrated in figure 3.

[37 FR 26606, Dec. 14, 1972, as amended at 38 FR 4399, Feb. 14, 1973; 38 FR 6392, Mar. 9, 1973; 43 FR 17947, Apr. 27, 1978]

§ 571.201 Standard No. 201; Occupant protection in interior impact.

S1. Purpose and scope. This standard specifies requirements to afford impact protection for occupants.

S2. Application. This standard applies to passenger cars and to multipurpose passenger vehicles, trucks and buses with a GVWR of 10,000 pounds or less.

S3. Requirements for passenger cars and for trucks, buses and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less manufactured on or after September 1, 1981.

S3.1 Instrument panels. Except as provided in S3.1.1, when that area of the instrument panel that is within the head impact area is impacted in accordance with S3.1.2 by a 15-pound, 6.5-inch diameter head form at a relative velocity of 15 miles per hour, the deceleration of the head form shall not exceed 80g continuously for more than 3 milliseconds.

S3.1.1 The requirements of S3.1 do not apply to:

(a) Console assemblies;

(b) Areas less than 5 inches inboard from the juncture of the instrument panel attachment to the body side inner structure;

(c) Areas closer to the windshield juncture than those statically contactable by the head form with the windshield in place;

(d) Areas outboard of any point of tangency on the instrument panel of a 6.5-inch diameter head form tangent to and inboard of a vertical longitudinal plane tangent to the inboard edge of the steering wheel; or

(e) Areas below any point at which a vertical line is tangent to the rearmost surface of the panel.

S3.1.2 Demonstration procedures. Tests shall be performed as described in Society of Automotive Engineers Recommended Practice J921, "Instrument Panel Laboratory Impact Test Procedure," June 1965, using the specified instrumentation or instrumentation that meets the performance requirements specified in Society of Automotive Engineers Recommended Practice J977, "Instrumentation for Laboratory Impact Tests," November 1966, except that:

(a) The origin of the line tangent to the instrument panel surface shall be a point on a transverse horizontal line through a point 5 inches horizontally forward of the seating reference point of the front outboard passenger designated seating position, displaced vertically an amount equal to the rise which results from a 5-inch forward adjustment of the seat or 0.75 inches; and

(b) Direction of impact shall be either:

(1) In a vertical plane parallel to the vehicle longitudinal axis; or

(2) In a plane normal to the surface at the point of contact.

S3.2 Seat Backs. Except as provided in S3.2.1, when that area of the seat back that is within the head impact area is impacted in accordance with S3.2.2 by a 15-pound, 6.5-inch diameter head form at a relative velocity of 15 miles per hour, the deceleration of the head form shall not exceed 80g continuously for more than 3 milliseconds.

S3.2.1 The requirements of S3.2 do not apply to seats installed in school buses which comply with the requirements of Standard No. 222, *School Bus Passenger Seating and Occupant Protection* (49 CFR 571.222) or to rear-most side-facing, back-to-back, folding auxiliary jump, and temporary seats.

S3.2.2 Demonstration procedures. Tests shall be performed as described in Society of Automotive Engineers Recommended Practice J921, "Instrument Panel Laboratory Impact Test Procedure," June 1965, using the specified instrumentation or instrumentation that meets the performance requirements specified in Society of Automotive Engineers Recommended Practice J977, "Instrumentation for Laboratory Impact Tests," November 1966, except that:

(a) The origin of the line tangent to the uppermost seat back frame component shall be a point on a transverse horizontal line through the seating reference point of the right rear designated seating position, with adjustable forward seats in their rearmost design driving position and reclinable forward seat backs in their nominal design driving position;

(b) The direction of impact shall be either:

(1) In a vertical plane parallel to the vehicle longitudinal axis; or

(2) In a plane normal to the surface at the point of contact;

(c) For seats without head restraints installed, tests shall be performed for each individual split or bucket seat back at points within 4 inches left and right of its centerline, and for each bench seat back between points 4 inches outboard of the centerline of each outboard designated seating position;

(d) For seats having head restraints installed, each test shall be conducted with the head restraint in place at its lowest adjusted position, at a point on the head restraint centerline; and

(e) For a seat that is installed in more than one body style, tests conducted at the fore and aft extremes identified by application of subparagraph (a) shall be deemed to have demonstrated all intermediate conditions.

S3.3 Interior compartment doors. Each interior compartment door assembly located in an instrument panel, console assembly, seat back, or side panel adjacent to a designated seating position shall remain closed when tested in accordance with either S3.3.1(a) and S3.3.1(b) or S3.3.1(a) and S3.3.1(c). Additionally, any interior compartment door located in an instrument panel or seat back shall remain closed when the instrument panel or seat back is tested in accordance with S3.1 and S3.2. All interior compartment door assemblies with a locking device must be tested with the locking device in an unlocked position.

S3.3.1 Demonstration procedures. (a) Subject the interior compartment door latch system to an inertia load of 10g in a horizontal transverse direction and an inertia load of 10g in a vertical direction in accordance with the procedure described in section 5 of SAE Recommended Practice J839b, "Passenger Car Side Door Latch Systems," May 1965, or an approved equivalent.

(b) Impact the vehicle perpendicularly into a fixed collision barrier at a forward longitudinal velocity of 30 miles per hour.

(c) Subject the interior compartment door latch system to a horizontal inertia load of 30g in a longitudinal direction in accordance with the procedure described in section 5 of SAE Recommended Practice J839b, "Passenger Car Side Door Latch Systems," May 1965, or an approved equivalent.

S3.4 Sun visors.

S3.4.1 A sun visor that is constructed of or covered with energy-absorbing material shall be provided for each front outboard designated seating position.

S3.4.2 Each sun visor mounting shall present no rigid material edge radius of less than 0.125 inch that is statically contractable by a spherical 6.5-inch diameter head form.

S3.5 Armrests.

S3.5.1 General. Each installed armrest shall conform to at least one of the following:

(a) It shall be constructed with energy-absorbing material and shall deflect or collapse laterally at least 2 inches without permitting contact with any underlying rigid material.

(b) It shall be constructed with energy-absorbing material that deflects or collapses to within 1.25 inches of a rigid test panel surface without permitting contact with any rigid material. Any rigid material between 0.5 and 1.25 inches from the panel surface shall have a minimum vertical height of not less than 1 inch.

(c) Along not less than 2 continuous inches of its length, the armrest shall, when measured vertically in side elevation, provide at least 2 inches of coverage within the pelvic impact area.

S3.5.2 Folding armrests. Each armrest that folds into the seat back or between two seat backs shall either:

(a) Meet the requirement of S3.5.1; or

(b) Be constructed of or covered with energy-absorbing material.

[36 FR 22902, Dec. 2, 1971, as amended at 44 FR 68475, Nov. 29, 1979; 47 FR 52451, Nov. 22, 1982]

§ 571.202 Standard No. 202; Head restraints.

S1. Purpose and scope. This standard specifies requirements for head restraints to reduce the frequency and

severity of neck injury in rear-end and other collisions.

S2. Application. This standard applies to passenger cars.

S3. Definitions. "Head restraint" means a device that limits rearward angular displacement of the occupant's head relative to his torso line.

S4. Requirements. A head restraint that conforms to either (a) or (b) shall be provided at each outboard front designated seating position—

(a) It shall, when tested in accordance with S5.1, during a forward acceleration of at least 8g on the seat supporting structure, limit rearward angular displacement of the head reference line to 45° from the torso reference line; or

(b) It shall, when adjusted to its fully extended design position, conform to each of the following—

(1) When measured parallel to torso line, the top of the head restraint shall not be less than 27.5 inches above the seating reference point;

(2) When measured either 2.5 inches below the top of head restraint or 25 inches above the seating reference point, the lateral width of the head restraint shall not be less than—

(i) 10 inches for use with bench-type seats; and

(ii) 6.75 inches for use with individual seats;

(3) When tested in accordance with S5.2, the rearmost portion of the head form shall not be displaced to more than 4 inches perpendicularly rearward of the displaced extended torso reference line during the application of the load specified in S5.2(c); and

(4) When tested in accordance with S5.2, the head restraint shall withstand an increasing load until one of the following occurs:

(i) Failure of the seat or seat back; or

(ii) Application of a load of 200 pounds.

S5. Demonstration procedures.

S5.1 Compliance with S4.(a) shall be demonstrated in accordance with the following with the head restraint in its fully extended design position:

(a) On the exterior profile of the head and torso of a dummy having the weight and seated height of a 95th percentile adult male with an ap-

proved representation of a human, articulated neck structure, or an approved equivalent test device, establish reference lines by the following method:

(1) Position the dummy's back on a horizontal flat surface with the lumbar joints in a straight line.

(2) Rotate the head of the dummy rearward until the back of the head contacts the same flat horizontal surface in paragraph (1).

(3) Position the SAE J-826 two-dimensional manikin's back against the flat surface in S5.1(a)(1), alongside the dummy with the h-point of the manikin aligned with the h-point of the dummy.

(4) Establish the torso line of the manikin as defined in SAE Aerospace-Automotive Drawing Standards, sec. 2.3.6, P.E1.01, September 1963.

(5) Establish the dummy torso reference line by superimposing the torso line of the manikin on the torso of the dummy.

(6) Establish the head reference line by extending the dummy torso reference line onto the head.

(b) At each designated seating position having a head restraint, place the dummy, snugly restrained by a Type 1 seat belt, in the manufacturer's recommended design seated position.

(c) During a forward acceleration applied to the structure supporting the seat as described below, measure the maximum rearward angular displacement between the dummy torso reference line and the head reference line. When graphically depicted, the magnitude of the acceleration curve shall not be less than that of a half-sine wave having the amplitude of 8g and a duration of 80 milliseconds and not more than that of a half-sine wave curve having an amplitude of 9.6g and a duration of 96 milliseconds.

S5.2 Compliance with S4.(b) shall be demonstrated in accordance with the following with the head restraint in its fully extended design position:

(a) Place a test device, having the back plan dimensions and torso line (centerline of the head room probe in full back position), of the three dimensional SAE J826 manikin, at the manufacturer's recommended design seated position.

(b) Establish the displaced torso reference line by applying a rearward moment of 3,300 in. lb. about the seating reference point to the seat back through the test device back pan located in (a).

(c) After removing the back pan, using a 6.5 inch diameter spherical head form or a cylindrical head form having a 6.5 inch diameter in plan view and a 6-inch height in profile view, apply, perpendicular to the displaced torso reference line, a rearward initial load 2.5 inches below the top of the head restraint that will produce a 3,300 in. lb. moment about the seating reference point.

(d) Gradually increase this initial load to 200 pounds or until the seat or seat back fails, whichever occurs first.

§ 571.203 Standard No. 203; Impact protection for the driver from the steering control system.

S1. Purpose and scope. This standard specifies requirements for steering control systems that will minimize chest, neck, and facial injuries to the driver as a result of impact.

S2. Application. This standard applies to passenger cars and to multipurpose passenger vehicles, trucks and buses with a GVWR of 10,000 pounds or less. However, it does not apply to vehicles that conform to the frontal barrier crash requirements (S5.1) of Standard No. 208 (49 CFR 571.208) by means of other than seat belt assemblies. It also does not apply to walk-in vans.

S3. Definitions. "Steering control system" means the basic steering mechanism and its associated trim hardware, including any portion of a steering column assembly that provides energy absorption upon impact.

S4. Requirements. Each passenger car and each multipurpose passenger vehicle, truck and bus with a GVWR of 10,000 pounds or less manufactured on or after September 1, 1981, shall meet the requirements of S5.1 and S5.2.

S5. Impact protection requirements.

S5.1 When the steering control system is impacted in accordance with Society of Automotive Engineers Recommended Practice J944, "Steering Wheel Assembly Laboratory Test Pro-

cedure," December 1965, or an approved equivalent, at a relative velocity of 15 miles per hour, the impact force developed on the chest of the body block transmitted to the steering control system shall not exceed 2,500 pounds, except for intervals whose cumulative duration is not more than 3 milliseconds.

S5.2 The steering control system shall be so constructed that no components or attachments, including horn actuating mechanisms and trim hardware, can catch the driver's clothing or jewelry during normal driving maneuvers.

NOTE: The term jewelry refers to watches, rings, and bracelets without loosely attached or dangling members.

[36 FR 22902, Dec. 2, 1971, as amended at 44 FR 68475, Nov. 29, 1979; 47 FR 47842, Oct. 28, 1982]

§ 571.204 Standard No. 204; Steering control rearward displacement.

S1. Purpose and scope. This standard specifies requirements limiting the rearward displacement of the steering control into the passenger compartment to reduce the likelihood of chest, neck, or head injury.

S2. Application. This standard applies to passenger cars and to multipurpose passenger vehicles, trucks and buses with a GVWR of 10,000 pounds or less. However, it does not apply to walk-in vans.

S3. Definitions.

"Steering column" means a structural housing that surrounds a steering shaft.

"Steering shaft" means a component that transmits steering torque from the steering wheel to the steering gear.

S4. Requirements. Each passenger car and each multipurpose passenger vehicle, truck and bus with an unloaded weight of 4,000 pounds or less manufactured on or after September 1, 1981, shall meet the requirement of S5.1.

S5. Rearward displacement requirements.

S5.1 The upper end of the steering column and shaft shall not be displaced horizontally rearward parallel to the longitudinal axis of the vehicle

relative to an undisturbed point on the vehicle more than 5 inches, determined by dynamic measurement, when the vehicle, loaded to its unloaded vehicle weight, is impacted perpendicularly into a fixed collision barrier at a forward longitudinal velocity of 30 miles per hour.

NOTE: When conducting the barrier collision test, a driver dummy may be used without measuring the impact force developed on the chest.

In the event that the vehicle impacts the barrier at a velocity not less than 30 miles per hour nor more than 33 miles per hour, the displacement of the steering column may be corrected to 30 miles per hour by means of the following formula:

$$(D_1/D_2) = (V_1^2/V_2^2)$$

[36 FR 22902, Dec. 2, 1971, as amended at 44 FR 68475, Nov. 29, 1979]

§ 571.205 Standard No. 205, Glazing materials.

S1. Scope. This standard specifies requirements for glazing materials for use in motor vehicles and motor vehicle equipment.

S2. Purpose. The purpose of this standard is to reduce injuries resulting from impact to glazing surfaces, to ensure a necessary degree of transparency in motor vehicle windows for driver visibility, and to minimize the possibility of occupants being thrown through the vehicle windows in collisions.

S3. Application. This standard applies to glazing materials for use in passenger cars, multipurpose passenger vehicles, trucks, buses, motorcycles, slide-in campers, and pickup covers designed to carry persons while in motion.

S4. Definitions. "Bullet resistant shield" means a shield or barrier that is installed completely inside a motor vehicle behind and separate from glazing materials that independently comply with the requirements of this standard.

"Camper" means a structure designed to be mounted in the cargo area of a truck, or attached to an incomplete vehicle with motive power, for the purpose of providing shelter for persons.

"Glass-plastic glazing material" means a laminate of one or more

layers of glass and one or more layers of plastic in which a plastic surface of the glazing faces inward when the glazing is installed in a vehicle.

"Motor home" means a multipurpose passenger vehicle that provides living accommodations for persons.

"Pickup cover" means a camper having a roof and sides but without a floor, designed to be mounted on and removable from the cargo area of a truck by the user.

"Slide-in camper" means a camper having a roof, floor, and sides, designed to be mounted on and removable from the cargo area of a truck by the user.

S5. Requirements.

S5.1 Materials.

S5.1.1 Glazing materials for use in motor vehicles, except as otherwise provided in this standard shall conform to the American National Standard "Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways" Z-26.1-1977, January 26, 1977, as supplemented by Z26.1a, July 3, 1980 (hereinafter referred to as "ANS Z26"). However, Item 11B glazing as specified in that standard may not be used in motor vehicles at levels requisite for driving visibility, and Item 11B glazing is not required to pass Test Nos. 17, 30, and 31.

S5.1.1.1 The chemicals specified for testing chemical resistance in Tests Nos. 19 and 20 of ANS Z26 shall be:

(a) One percent solution of nonabrasive soap.

(b) Kerosene.

(c) Undiluted denatured alcohol, Formula SD No. 30 (1 part 100-percent methyl alcohol in 10 parts 190-proof ethyl alcohol by volume).

(d) Commercial motor car gasoline.

S5.1.1.2 The following locations are added to the lists specified in ANS Z26 in which item 4, item 5, item 8, and item 9 safety glazing may be used:

(a)—(i) [Reserved]

(j) Windows and doors in motor homes, except for the windshield and windows to the immediate right or left of the driver.

(k) Windows and doors in slide-in campers and pickup covers.

(l) Windows and doors in buses except for the windshield, windows to

the immediate right or left of the driver, and rearmost windows if used for driving visibility.

(m) For Item 5 safety glazing only: Motorcycle windscreens below the intersection of a horizontal plane 15 inches vertically above the lowest seating position.

S5.1.1.3 The following locations are added to the lists specified in ANS Z26 in which item 6 and item 7 safety glazing may be used:

(a)—(i) [Reserved]

(j) Windows and doors in motor homes, except for the windshield, forward-facing windows, and windows to the immediate right or left of the driver.

(k) Windows, except forward-facing windows, and doors in slide-in campers and pickup covers.

(l) For item 7 safety glazing only:

(1) Standee windows in buses.

(2) Interior partitions.

(3) Openings in the roof.

S5.1.1.4 The following locations are added to the lists specified in ANS Z26 in which item 8 and item 9 safety glazing may be used:

(a)—(e) [Reserved]

(f) Windows and doors in motor homes, except for the windshield and windows to the immediate right or left of the driver.

(g) Windows and doors in slide-in campers and pickup covers.

S5.1.1.5 The phrase "readily removable" windows as defined in ANS Z26, for the purposes of this standard, in buses having a GVWR of more than 10,000 pounds, shall include pushout windows and windows mounted in emergency exits that can be manually pushed out of their location in the vehicle without the use of tools, regardless of whether such windows remain hinged at one side to the vehicle.

S5.1.1.6 *Multipurpose passenger vehicles.* Except as otherwise specifically provided by this standard, glazing for use in multipurpose passenger vehicles shall conform to the requirements for glazing for use in trucks as specified in ANS Z26.

S5.1.1.7 Test No. 17 is deleted from the list of tests specified in ANS Z26 for Item 5 glazing material and Test No. 18 is deleted from the lists of tests

specified in ANS Z26 for Item 3 and Item 9 glazing material.

S5.1.2 In addition to the glazing materials specified in ANS Z26, materials conforming to S5.1.2.1, S5.1.2.2, S5.1.2.3 or S5.1.2.4 may be used in the locations of motor vehicles specified in those sections.

S5.1.2.1 *Item 11C—Safety Glazing Material for Use in Bullet Resistant Shields.* Bullet resistant glazing that complies with Test Nos. 2, 17, 19, 20, 21, 24, 27, 28, 29, 30 and 32 of ANS Z26 and the labeling requirements of S5.1.2.5 may be used only in bullet resistant shields that can be removed from the motor vehicle easily for cleaning and maintenance. A bullet resistant shield may be used in areas requisite for driving visibility only if the combined parallel luminous transmittance with perpendicular incidence through both the shield and the permanent vehicle glazing is at least 60 percent.

S5.1.2.2 *Item 12—Rigid Plastics.* Safety plastics materials that comply with Test Nos. 10, 13, 16, 19, 20, 21 and 24 of ANS Z26, with the exception of the test for resistance to undiluted denatured alcohol Formula SD No. 30, and that comply with the labeling requirements of S5.1.2.5, may be used in a motor vehicle only in the following specified locations at levels not requisite for driving visibility.

(a) Window and doors in slide-in campers and pick-up covers.

(b) Motorcycle windscreens below the intersection of a horizontal plane 15 inches vertically above the lowest seating position.

(c) Standee windows in buses.

(d) Interior partitions.

(e) Openings in the roof.

(f) Flexible curtains or readily removable windows or in ventilators used in conjunction with readily removable windows.

(g) Windows and doors in motor homes, except for the windshield and windows to the immediate right or left of the driver.

(h) Windows and doors in buses except for the windshield and window to the immediate right and left of the driver.

S5.1.2.3 *Item 13—Flexible plastics.* Safety plastic materials that comply

with Tests Nos. 16, 19, 20, 22, and 23 or 24 of ANS Z26, with the exception of the test for resistance to undiluted denatured alcohol Formula SD No. 30, and that comply with the labeling requirements of S5.1.2.5 may be used in the following specific locations at levels not requisite for driving visibility.

(a) Windows, except forward-facing windows, and doors in slide-in campers and pick-up covers.

(b) Motorcycle windscreens below the intersection of a horizontal plane 15 inches vertically above the lowest seating position.

(c) Standee windows in buses.

(d) Interior partitions.

(e) Openings in the roof.

(f) Flexible curtains or readily removable windows or in ventilators used in conjunction with readily removable windows.

(g) Windows and doors in motor homes, except for the windshield, forward-facing windows, and windows to the immediate right or left of the driver.

S5.1.2.4 Item 14—Glass-Plastics. Glass-plastic glazing materials that comply with the labeling requirements of S5.1.2.5 and Tests Nos. 1, 2, 3, 4, 9, 12, 15, 16, 17, 18, 19, 24, 26, and 28, as those tests are modified in (a), (b), (c), and (d) of this paragraph, may be used anywhere in a motor vehicle, except that it may not be used in convertibles, in vehicles that have no roof or in vehicles whose roofs are completely removable.

(a) Tests Nos. 9, 16, and 18 shall be conducted on the glass side of the specimen, i.e., the surface which would face the exterior of the vehicle. Tests Nos. 17, 19, 24, and 26 shall be conducted on the plastic side of the specimen, i.e., the surface which would face the interior of the vehicle. Test No. 15 should be conducted with the glass side of the glazing facing the illuminated box and the screen, respectively. For Test No. 19, add the following chemical to the specified list: an aqueous solution of isopropanol and glycol ether solvents in concentration no greater than 10% or less than 5% by weight and ammonium hydroxide no greater than 5% or less than 1% by

weight, simulating typical commercial windshield cleaner.

(b) Glass-plastic specimens shall be exposed to an ambient air temperature of $-40^{\circ}\text{C}(+5^{\circ})$ ($-40^{\circ}\text{F}+9^{\circ}$) for a period of 6 hours at the commencement of Test No. 28, rather than at the initial temperature specified in that test. After testing, the glass-plastic specimens shall show no evidence of cracking, clouding, delaminating, or other evidence of deterioration.

(c) Glass-plastic specimens tested in accordance with Test No. 17 shall be carefully rinsed with distilled water following the abrasion procedure and wipe dry with lens paper. After this procedure, the arithmetic mean of the percentage of light scattered by the three specimens as a result of abrasion shall not exceed 4.0 percent.

(d) Data obtained from Test No. 1 should be used when conducting Test No. 2.

S5.1.2.5 Cleaning instructions. (a) Each manufacturer of glazing materials designed to meet the requirements of S5.1.2.1, S5.1.2.2, S5.1.2.3, or S5.1.2.4 shall affix a label, removable by hand without tools, to each item of such glazing material. The label shall identify the product involved, specify instructions and agents for cleaning the material that will minimize the loss of transparency, and instructions for removing frost and ice, and, at the option of the manufacturer, refer owners to the vehicle's Owner's Manual for more specific cleaning and other instructions.

(b) Each manufacturer of glazing materials designed to meet the requirements of paragraph S5.1.2.4 may permanently and indelibly mark the lower center of each item of such glazing material, in letters not less than $\frac{3}{16}$ inch nor more than $\frac{1}{4}$ inch high, the following words, "GLASS PLASTIC MATERIAL—SEE OWNER'S MANUAL FOR CARE INSTRUCTIONS."

S5.2 Edges. In vehicles except schoolbuses, exposed edges shall be treated in accordance with SAE Recommended Practice J673a, "Automotive Glazing", August 1967. In schoolbuses, exposed edges shall be banded.

S6. Certification and marking.

S6.1 Each prime glazing material manufacturer, except as specified below, shall mark glazing materials manufactured by him in accordance with section 6 of ANS Z26. The materials specified in S5.1.2.1, S5.1.2.2, S5.1.2.3 and S5.1.2.4 shall be identified by the marks "AS 11C", "AS 12", "AS 13" and "AS 14", respectively. A prime glazing material manufacturer is one who fabricates, laminates, or tempers the glazing material.

S6.2 Each prime glazing material manufacturer shall certify each piece of glazing material to which this standard applies that is designed as a component of any specific motor vehicle or camper, pursuant to section 114 of the National Traffic and Motor Vehicle Safety Act of 1966, by adding to the mark required by S6.1 in letters and numerals of the size specified in section 6 of ANS Z26, the symbol "DOT" and a manufacturer's code mark, which will be assigned by the NHTSA on the written request of the manufacturer.

S6.3 Each prime glazing material manufacturer shall certify each piece of glazing material to which this standard applies that is designed to be cut into components for use in motor vehicles or items of motor vehicle equipment, pursuant to section 114 of the National Traffic and Motor Vehicle Safety Act.

S6.4 Each manufacturer or distributor who cuts a section of glazing material to which this standard applies, for use in a motor vehicle or camper, shall mark that material in accordance with section 6 of ANS Z26.

S6.5 Each manufacturer or distributor who cuts a section of glazing material to which this standard applies, for use in a motor vehicle or camper, shall certify that his product complies with this standard in accordance with section 114 of the National Traffic and Motor Vehicle Safety Act.

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); delegations of authority at 49 CFR 1.50 and 49 CFR 501.7)

[37 FR 12239, June 21, 1972, as amended at 37 FR 13097, July 1, 1972; 37 FR 24036, Nov. 11, 1972; 37 FR 24826, Nov. 22, 1972; 42 FR 61466, Dec. 5, 1977; 45 FR 47151, July 14, 1980; 46 FR 43690, Aug. 31, 1981; 48 FR 52065, Nov. 16, 1983; 49 FR 6734, Feb. 23, 1984]

§ 571.206 Standard No. 206; Door locks and door retention components.

S1. *Purpose and scope.* This standard specifies requirements for side door locks and side door retention components including latches, hinges, and other supporting means, to minimize the likelihood of occupants being thrown from the vehicle as a result of impact.

S2. *Application.* This standard applies to passenger cars, multipurpose passenger vehicles, and trucks.

S3. *Definitions.* "Cargo-Type Door" means a door designed primarily to accommodate cargo loading including, but not limited to, a two-part door that latches to itself.

"Side front door" means a door that in a side view, has 50 percent or more of its opening area forward of the rearmost point on the driver's seatback, when the driver's seat is adjusted to its most vertical and rearward position.

"Side rear door" means a door that, in a side view, has more than 50 percent of its opening area to the rear of the rearmost point on the driver's seatback, when the driver's seat is adjusted to its most vertical and rearward position.

S4. *Requirements.* Components on any side door leading directly into a compartment that contains one or more seating accommodations shall conform to this standard. However, components on folding doors, roll-up doors, doors that are designed to be easily attached to or removed from motor vehicles manufactured for operation without doors, and side doors which are equipped with wheelchair lifts and which are linked to an alarm system consisting of either a flashing visible signal located in the driver's compartment or an alarm audible to the driver which is activated when the door is open, need not conform to this standard.

S4.1 *Hinged Doors, Except Cargo-Type Doors.*

S4.1.1 *Door Latches.* Each door latch and striker assembly shall be provided with two positions consisting of—

- (a) A fully latched position; and
- (b) A secondary latched position.

S4.1.1.1 Longitudinal Load. The door latch and striker assembly, when in the fully latched position, shall not separate when a longitudinal load of 2,500 pounds is applied. When in the secondary latched position, the door latch and striker assembly shall not separate when a longitudinal load of 1,000 pounds is applied.

S4.1.1.2 Transverse Load. The door latch and striker assembly, when in the fully latched position, shall not separate when a transverse load of 2,000 pounds is applied. When in the secondary latched position, the door latch and striker assembly shall not separate when a transverse load of 1,000 pounds is applied.

S4.1.1.3 Inertia Load. The door latch shall not disengage from the fully latched position when a longitudinal or transverse inertia load of 30g is applied to the door latch system (including the latch and its actuating mechanism with the locking mechanism disengaged).

S4.1.2 Door Hinges. Each door hinge system shall support the door and shall not separate when a longitudinal load of 2,500 pounds is applied. Similarly, each door hinge system shall not separate when a transverse load of 2,000 pounds is applied.

S4.1.3 Door Locks. Each door shall be equipped with a locking mechanism with an operating means in the interior of the vehicle.

S4.1.3.1 Side Front Door Locks. When the locking mechanism is engaged, the outside door handle or other outside latch release control shall be inoperative.

S4.1.3.2 Side Rear Door Locks. In passenger cars and multipurpose passenger vehicles, when the locking mechanism is engaged both the outside and inside door handles or other latch release controls shall be inoperative.

S4.2 Hinged Cargo-Type Doors.

S4.2.1 Door Latches.

S4.2.1.1 Longitudinal Load. Each latch system, when in the latched position, shall not separate when a longitudinal load of 2,500 pounds is applied.

S4.2.1.2 Transverse Load. Each latch system, when in the latched position, shall not separate when a transverse load of 2,000 pounds is applied.

When more than one latch system is used on a single door, the load requirement may be divided among the total number of latch systems.

S4.2.2 Door Hinges. Each door hinge system shall support the door and shall not separate when a longitudinal load of 2,500 pounds is applied, and when a transverse load of 2,000 pounds is applied.

S4.3 Sliding Doors. The track and slide combination or other supporting means for each sliding door shall not separate when a total transverse load of 4,000 pounds is applied, with the door in the closed position.

S5. Demonstration Procedures.

S5.1 Hinged Doors, Except Cargo-Type Doors.

S5.1.1 Door Latches.

S5.1.1.1 Longitudinal and Transverse Loads. Compliance with paragraphs S4.1.1.1 and S4.1.1.2 shall be demonstrated in accordance with paragraph 4 of Society of Automotive Engineers Recommended Practice J839b, "Passenger Car Side Door Latch Systems," May 1965.

S5.1.1.2 Inertia Load. Compliance with S4.1.1.3 shall be demonstrated by approved tests or in accordance with paragraph 5 of SAE Recommended Practice J839b, May 1965.

S5.1.2 Door Hinges. Compliance with S4.1.2 shall be demonstrated in accordance with paragraph 4 of SAE Recommended Practice J934, "Vehicle Passenger Door Hinge Systems," July 1965. For piano-type hinges, the hinge spacing requirements of SAE J934 shall not be applicable and arrangement of the test fixture shall be altered as required so that the test load will be applied to the complete hinge.

S5.2 Hinged Cargo-Type Doors.

S5.2.1 Door Latches. Compliance with S4.2.1 shall be demonstrated in accordance with paragraphs 4.1 and 4.3 of SAE Recommended Practice J839b, "Passenger Car Side Door Latch Systems," May 1965. An equivalent static test fixture may be substituted for that shown in Figure 2 of SAE J839b, if required.

S5.2.2 Door Hinges. Compliance with S4.2.2 shall be demonstrated in accordance with paragraph 4 of SAE Recommended Practice J934, "Vehicle Passenger Door Hinge Systems," July

1965. For piano-type hinges, the hinge spacing requirement of SAE J934 shall not be applicable and arrangement of the test fixture shall be altered as required so that the test load will be applied to the complete hinge.

S5.3 Sliding Doors. Compliance with S4.3 shall be demonstrated by applying an outward transverse load of 2,000 pounds to the load bearing members at the opposite edges of the door (4,000 pounds total). The demonstration may be performed either in the vehicle or with the door retention components in a bench test fixture.

[36 FR 22902, Dec. 2, 1971, as amended at 37 FR 284, Jan. 8, 1972; 50 FR 12031, Mar. 27, 1985]

§ 571.207 Standard No. 207; Seating systems.

S1. Purpose and scope. This standard establishes requirements for seats, their attachment assemblies, and their installation to minimize the possibility of their failure by forces acting on them as a result of vehicle impact.

S2. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks and buses.

S3. Definition. "Occupant seat" means a seat that provides at least one designated seating position.

S4. Requirements.

S4.1 Driver's seat. Each vehicle shall have an occupant seat for the driver.

S4.2 General performance requirements. When tested in accordance with S5., each occupant seat, other than a side-facing seat or a passenger seat on a bus, shall withstand the following forces.

(a) In any position to which it can be adjusted—20 times the weight on the seat applied in a forward longitudinal direction;

(b) In any position to which it can be adjusted—20 times the weight of the seat applied in a rearward longitudinal direction;

(c) For a seat belt assembly attached to the seat—the force specified in paragraph (a), if it is a forward facing seat, or paragraph (b), if it is a rearward facing seat, in each case applied simultaneously with the forces imposed on the seat by the seat belt as-

sembly when it is loaded in accordance with S4.2 of § 571.210; and

(d) In its rearmost position—a force that produces a 3,300 inch-pound moment about the seating reference point for each designated seating position that the seat provides, applied to the upper cross-member of the seat back or the upper seat back, in a rearward longitudinal direction for forward-facing seats and in a forward longitudinal direction for rearward-facing seats.

S4.2.1 Seat adjustment. Except for vertical movement of nonlocking suspension type occupant seats in trucks or buses, the seat shall remain in its adjusted position during the application of each force specified in S4.2.

S4.3 Restraining device for hinged or folding seats or seat backs. Except for a passenger seat in a bus or a seat having a back that is adjustable only for the comfort of its occupants, a hinged or folding occupant seat or occupant seat back shall be equipped with a self-locking device for restraining the hinged or folding seat or seat back and a control for releasing that restraining device.

S4.3.1 Accessibility of release control. If there is a designated seating position immediately behind a seat equipped with a restraining device, the control for releasing the device shall be readily accessible to the occupant of the seat equipped with the device and, if access to the control is required in order to exit from the vehicle, to the occupant of the designated seating position immediately behind the seat.

S4.3.2 Performance of restraining device.

S4.3.2.1 Static force.

(a) Once engaged, the restraining device for forward-facing seat shall not release or fail when a forward longitudinal force equal to 20 times the weight of the hinged or folding portion of the seat is applied through the center of gravity of that portion of the seat.

(b) Once engaged, the restraining device for a rearward facing seat shall not release or fail when a rearward longitudinal force equal to 8 times the weight of the hinged or folding portion of the seat is applied to the center of gravity of that portion of the seat.

S4.3.2.2 Acceleration. Once engaged, the restraining device shall not release or fail when the device is subjected to an acceleration of 20 g., in the longitudinal direction opposite to that in which the seat folds.

S4.4 Labeling. Seats not designated for occupancy while the vehicle is in motion shall be conspicuously labeled to that effect.

S5. Test procedures.

S5.1 Apply the forces specified in S4.2(a) and S4.2(b) as follows:

S5.1.1 If the seat back and the seat bench are attached to the vehicle by the same attachments, secure a strut on each side of the seat from a point on the outside of the seat frame in the horizontal plane of the seat's center of gravity to a point on the frame as far forward as possible of the seat anchorages. Between the upper ends of the struts place a rigid cross-member, in front of the seat back frame for rearward loading and behind the seat back frame for forward loading. Apply the force specified by S4.2(a) or S4.2(b)

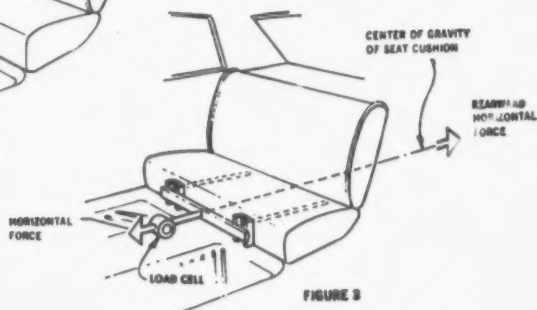
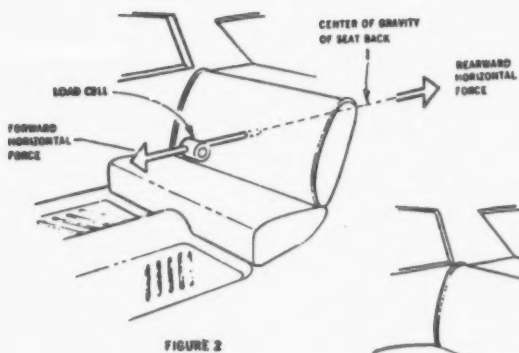
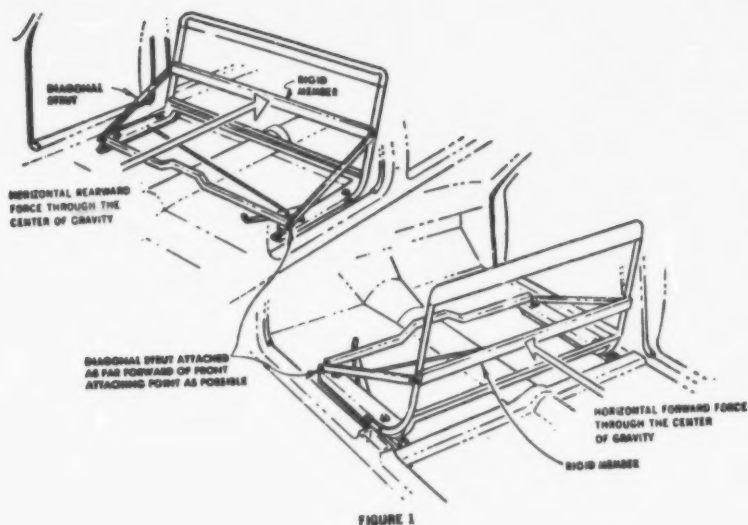
horizontally through the rigid cross-member as shown in figure 1.

S5.1.2 If the seat back and the seat bench are attached to the vehicle by different attachments, attach to each component a fixture capable of transmitting a force to that component. Apply forces equal to 20 times the weight of the seat back horizontally through the center of gravity of the seat back, as shown in figure 2, and apply forces equal to 20 times the weight of the seat bench horizontally through the center of gravity of the seat bench, as shown in figure 3.

S5.2 Develop the moment specified in S4.2(d) as shown in figure 4.

S5.3 Apply the forces specified in S4.3.2.1(a) and (b) to a hinged or folding seat as shown in figure 1 and to a hinged or folding seat back as shown in figure 5.

S5.4 Determine the center of gravity of a seat or seat component with all cushions and upholstery in place and with the head restraint in its fully extended design position.



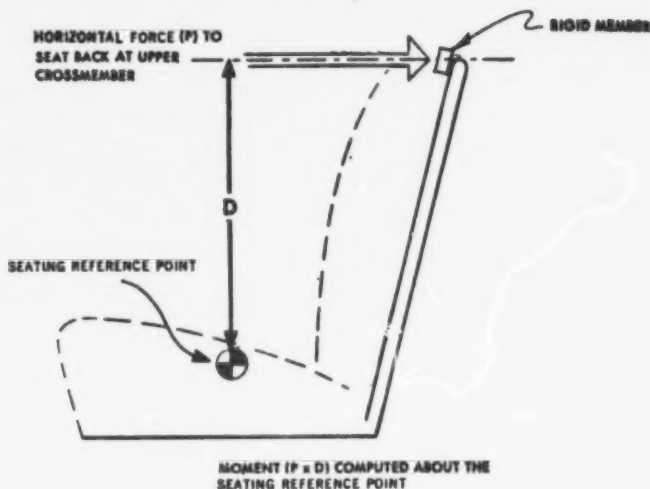


FIGURE 4

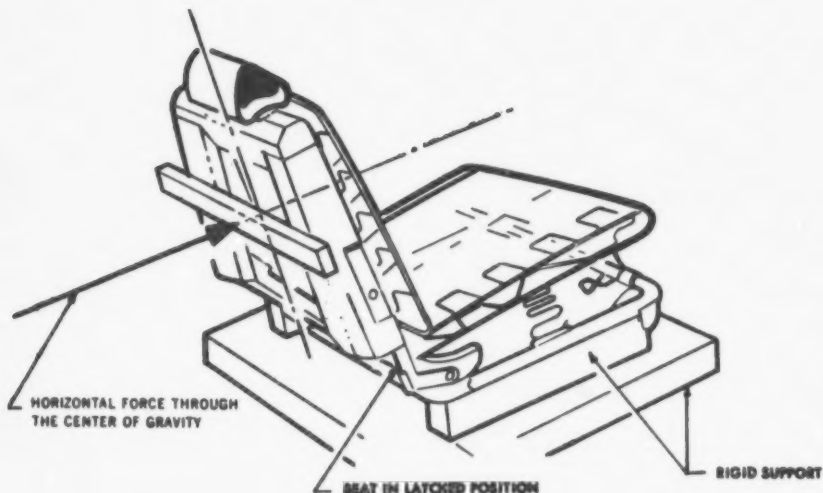


FIGURE 5

§ 571.208 Standard No. 208; Occupant crash protection.

EDITORIAL NOTES: For compliance dates relating to automatic occupant restraint requirements, see "Effective Date Note 1" appearing at the end of this standard.

The effectiveness of certain provisions in this standard 208 relating to seat belt comfort and convenience have been delayed

until September 1, 1986. See the "Effective Date Notes" appearing at the end of the standard.

S1. Scope. This standard specifies performance requirements for the protection of vehicle occupants in crashes.

S2. Purpose. The purpose of this standard is to reduce the number of deaths of vehicle occupants, and the

severity of injuries, by specifying vehicle crashworthiness requirements in terms of forces and accelerations measured on anthropomorphic dummies in test crashes, and by specifying equipment requirements for active and passive restraint systems.

S3. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses. In addition, S9., *Pressure vessels and explosive devices*, applies to vessels designed to contain a pressurized fluid or gas, and to explosive devices, for use in the above types of motor vehicles as part of a system designed to provide protection to occupants in the event of a crash.

S4. General requirements.

S4.1 Passenger cars.

S4.1.1 Passenger cars manufactured from January 1, 1972, to August 31, 1973. Each passenger car manufactured from January 1, 1972, to August 31, 1973, inclusive, shall meet the requirements of S4.1.1.1, S4.1.1.2, or S4.1.1.3. A protection system that meets the requirements of S4.1.1.1, or S4.1.1.2 may be installed at one or more designated seating positions of a vehicle that otherwise meets the requirements of S4.1.1.3.

S4.1.1.1 First option—complete passive protection system. The vehicle shall meet the crash protection requirements of S5. by means that require no action by vehicle occupants.

S4.1.1.2 Second option—lap belt protection system with belt warning. The vehicle shall—

(a) At each designated seating position have a Type 1 seatbelt assembly or a Type 2 seatbelt assembly with a detachable upper torso portion that conforms to S7.1 and S7.2 of this standard;

(b) At each front outboard designated seating position, have a seat belt warning system that conforms to S7.3; and

(c) Meet the frontal crash protection requirements of S5.1, in a perpendicular impact, with respect to anthropomorphic test devices in each front outboard designated seating position restrained only by Type 1 seat belt assemblies.

S4.1.1.3 Third option—lap and shoulder belt protection system with belt warning.

S4.1.1.3.1 Except for convertibles and open-body vehicles, the vehicle shall—

(a) At each front outboard designated seating position have a Type 2 seatbelt assembly that conforms to § 571.209 and S7.1 and S7.2 of this standard, with either an integral or detachable upper torso portion, and a seatbelt warning system that conforms to S7.3;

(b) At each designated seating position other than the front outboard positions, have a Type 1 or Type 2 seat belt assembly that conforms to § 571.209 and to S7.1 and S7.2 of this standard; and

(c) When it perpendicularly impacts a fixed collision barrier, while moving longitudinally forward at any speed up to and including 30 m.p.h., under the test conditions of S8.1 with anthropomorphic test devices at each front outboard position restrained by Type 2 seatbelt assemblies, experience no complete separation of any load-bearing element of a seatbelt assembly or anchorage.

S4.1.1.3.2 Convertibles and open-body type vehicles shall at each designated seating position have a Type 1 or Type 2 seatbelt assembly that conforms to § 571.209 and to S7.1 and S7.2 of this standard, and at each front outboard designated seating position have a seatbelt warning system that conforms to S7.3.

S4.1.2 Passenger cars manufactured on or after September 1, 1973, and before September 1, 1986. Each passenger car manufactured on or after September 1, 1973, and before September 1, 1986, shall meet the requirements of S4.1.2.1, S4.1.2.2 or S4.1.2.3. A protection system that meets the requirements of S4.1.2.1 or S4.1.2.2 may be installed at one or more designated seating positions of a vehicle that otherwise meets the requirements of S4.1.2.3.

S4.1.2.1 First option—frontal/angular automatic protection system. The vehicle shall:

(a) At each front outboard designated seating position meet the frontal crash protection requirements of S5.1

by means that require no action by vehicle occupants;

(b) At the front center designated seating position and at each rear designated seating position have a Type 1 or Type 2 seat belt assembly that conforms to Standard No. 209 and to S7.1 and S7.2; and

(c) *Either*. (1) Meet the lateral crash protection requirements of S5.2 and the rollover crash protection requirements of S5.3 by means that require no action by vehicle occupants; or

(2) At each front outboard designated seating position have a Type 1 or Type 2 seat belt assembly that conforms to Standard No. 209 and S7.1 through S7.3, and that meets the requirements of S5.1 with front test dummies as required by S5.1, restrained by the Type 1 or Type 2 seat belt assembly (or the pelvic portion of any Type 2 seat belt assembly which has a detachable upper torso belt) in addition to the means that require no action by the vehicle occupant.

S4.1.2.2 Second option—head-on automatic protection system. The vehicle shall—

(a) At each designated seating position have a Type 1 seat belt assembly or Type 2 seat belt assembly with a detachable upper torso portion that conforms to S7.1 and S7.2 of this standard.

(b) At each front outboard designated seating position, meet the frontal crash protection requirements of S5.1, in a perpendicular impact, by means that require no action by vehicle occupants;

(c) At each front outboard designated seating position, meet the frontal crash protection requirements of S5.1, in a perpendicular impact, with a test device restrained by a Type 1 seat belt assembly; and

(d) At each front outboard designated seating position, have a seat belt warning system that conforms to S7.3.

S4.1.2.3 Third option—lap and shoulder belt protection system with belt warning.

S4.1.2.3.1 Except for convertibles and open-body vehicles, the vehicle shall—

(a) At each front outboard designated seating position have a seat belt assembly that conforms to S7.1 and S7.2

of this standard, and a seat belt warning system that conforms to S7.3. The belt assembly shall be either a Type 2 seat belt assembly with a nondetachable shoulder belt that conforms to Standard No. 209 (§ 571.209), or a Type 1 seat belt assembly such that with a test device restrained by the assembly the vehicle meets the frontal crash protection requirements of S5.1 in a perpendicular impact.

(b) At any center front designated seating position, have a Type 1 or Type 2 seat belt assembly that conforms to Standard No. 209 (§ 571.209) and to S7.1 and S7.2 of this standard, and a seat belt warning system that conforms to S7.3; and

(c) At each other designated seating position, have a Type 1 or Type 2 seat belt assembly that conforms to Standard No. 209 (§ 571.209) and S7.1 and S7.2 of this standard.

S4.1.2.3.2 Convertibles and open-body type vehicles shall at each designated seating position have a Type 1 or Type 2 seat belt assembly that conforms to Standard No. 209 (§ 571.209) and to S7.1 and S7.2 of this standard, and at each front designated seating position have a seat belt warning system that conforms to S7.3.

S4.1.3 Passenger cars manufactured on or after September 1, 1986, and before September 1, 1989.

S4.1.3.1 Passenger cars manufactured on or after September 1, 1986, and before September 1, 1987.

S4.1.3.1.1 Subject to S4.1.3.1.2 and S4.1.3.4, each passenger car manufactured on or after September 1, 1986, and before September 1, 1987, shall comply with the requirements of S4.1.2.1, S4.1.2.2 or S4.1.2.3.

S4.1.3.1.2 Subject to S4.1.5, an amount of the cars specified in S4.1.3.1.1 equal to not less than 10 percent of the average annual production of passenger cars manufactured on or after September 1, 1983, and before September 1, 1986, by each manufacturer, shall comply with the requirements of S4.1.2.1.

S4.1.3.2 Passenger cars manufactured on or after September 1, 1987, and before September 1, 1988.

S4.1.3.2.1 Subject to S4.1.3.2.2 and S4.1.3.4, each passenger car manufactured on or after September 1, 1987,

and before September 1, 1988, shall comply with the requirements of S4.1.2.1, S4.1.2.2 or S4.1.2.3.

S4.1.3.2.2 Subject to S4.1.5, an amount of the cars specified in S4.1.3.2.1 equal to not less than 25 percent of the average annual production of passenger cars manufactured on or after September 1, 1984, and before September 1, 1987, by each manufacturer, shall comply with the requirements of S4.1.2.1.

S4.1.3.3 *Passenger cars manufactured on or after September 1, 1988, and before September 1, 1989.*

S4.1.3.3.1 Subject to S4.1.3.3.2 and S4.1.3.4, each passenger car manufactured on or after September 1, 1988, and before September 1, 1989, shall comply with the requirements of S4.1.2.1, S4.1.2.2 or S4.1.2.3.

S4.1.3.3.2 Subject to S4.1.5, an amount of the cars specified in S4.1.3.3.1 equal to not less than 40 percent of the average annual production of passenger cars manufactured on or after September 1, 1985, and before September 1, 1988, by each manufacturer, shall comply with the requirements of S4.1.2.1.

S4.1.3.4 For the purposes of calculating the numbers of cars manufactured under S4.1.3.1.2, S4.1.3.2.2, or S4.1.3.3.2 to comply with S4.1.2.1:

(a) Each car whose driver's seating position will comply with the requirements of S4.1.2.1(a) by means not including any type of seat belt and whose front right seating position will comply with the requirements of S4.1.2.1(a) is counted as 1.5 vehicles.

(b) Each car whose driver's seating position will comply with the requirements of S4.1.2.1(a) by means not including any type of seat belt and whose front right seating position is equipped with a Type 2 seat belt is counted as a vehicle conforming to S4.1.2.1.

S4.1.4 *Passenger cars manufactured on or after September 1, 1989.* Except as provided in S4.1.5, each passenger car manufactured on or after September 1, 1989, shall comply with the requirements of S4.1.2.1.

S4.1.5 *Mandatory seatbelt use laws.*

S4.1.5.1 If the Secretary of Transportation determines, by not later than April 1, 1989, that state mandato-

ry safety belt usage laws have been enacted that meet the criteria specified in S4.1.5.2 and that are applicable to not less than two-thirds of the total population of the 50 states and the District of Columbia (based on the most recent Estimates of the Resident Population of States, by Age, Current Population Reports, Series P-25, Bureau of the Census), each passenger car manufactured under S4.1.3 or S4.1.4 on or after the date of that determination shall comply with the requirements of S4.1.2.1, S4.1.2.2, or S4.1.2.3.

S4.1.5.2 The minimum criteria for state mandatory safety belt usage laws are:

(a) Require that each front seat occupant of a passenger car equipped with safety belts under Standard No. 208 has a safety belt properly fastened about his or her body at all times when the vehicle is in forward motion.

(b) If waivers from the safety belt usage requirement are to be provided, permit them for medical reasons only.

(c) Provide for the following enforcement measures:

(1) A penalty of not less than \$25.00 (which may include court costs) for each occupant of a car who violates the belt usage requirement.

(2) A provision specifying that the violation of the belt usage requirement may be used to mitigate damages with respect to any person who is involved in a passenger car accident while violating the belt usage requirement and who seeks in any subsequent litigation to recover damages for injuries resulting from the accident. This requirement is satisfied if there is a rule of law in the State permitting such mitigation.

(3) A program to encourage compliance with the belt usage requirement.

(d) An effective date of not later than September 1, 1989.

S4.2 *Trucks and multipurpose passenger vehicles with GVWR of 10,000 pounds or less.*

S4.2.1 *Trucks and multipurpose passenger vehicles, with GVWR of 10,000 pounds or less, manufactured from January 1, 1972 to December 31, 1975.* Each truck and multipurpose passenger vehicle with a gross vehicle weight rating of 10,000 pounds or less,

manufactured from January 1, 1972, to December 31, 1975, inclusive, shall meet the requirements of S4.2.1.1 or S4.2.1.2, or at the option of the manufacturer, the requirements of S4.2.2. A protection system that meets the requirement of S4.2.1.1. may be installed at one or more designated seating positions of a vehicle that otherwise meets the requirements of S4.2.1.2.

S4.2.1.1 First option—complete passive protection system. The vehicle shall meet the crash protection requirements of S5. by means that require no action by vehicle occupants.

S4.2.1.2 Second option—belt system. The vehicle shall have seat belt assemblies that conform to Standard 209 installed as follows:

(a) A Type 1 or Type 2 seat belt assembly shall be installed for each designated seating position in convertibles, open-body type vehicles, and walk-in van-type trucks.

(b) In all vehicles except those for which requirements are specified in S4.2.1.2(a), a Type 2 seat belt assembly shall be installed for each outboard designated seating position that includes the windshield header within the head impact area, and a Type 1 or Type 2 seat belt assembly shall be installed for each other designated seating position.

S4.2.2 Trucks and multipurpose passenger vehicles, with GVWR of 10,000 pounds or less, manufactured on or after January 1, 1976. Each truck and multipurpose passenger vehicle, with a gross vehicle weight rating of 10,000 pounds or less, manufactured on or after January 1, 1976, shall meet the requirements of S4.1.2.1 or, at the option of the manufacturer, S4.1.2.2. or S4.1.2.3 (as specified for passenger cars), except that forward control vehicles manufactured prior to September 1, 1981, convertibles, open-body type vehicles, walk-in van-type trucks, motor homes, vehicles designed to be exclusively sold to the U.S. Postal Service and vehicles carrying chassis-mount campers may instead meet the requirements of S4.2.1.2.

S4.2.3 [Reserved]

S4.3 Trucks and multipurpose passenger vehicles, with GVWR of more than 10,000 pounds. Each truck and multipurpose passenger vehicle, with a

gross vehicle weight rating of more than 10,000 pounds, manufactured on or after January 1, 1972, shall meet the requirements of S4.3.1 or S4.3.2. A protection system that meets the requirements of S4.3.1 may be installed at one or more designated seating positions of a vehicle that otherwise meets the requirements of S4.3.2.

S4.3.1 First option—complete passive protection system. The vehicle shall meet the crash protection requirements of S5. by means that require no action by vehicle occupants.

S4.3.2 Second option—belt system. The vehicle shall, at each designated seating position, have either a Type 1 or a Type 2 seat belt assembly that conforms to § 571.209.

S4.4 Buses. Each bus manufactured on or after January 1, 1972, shall meet the requirements of S4.4.1 or S4.4.2.

S4.4.1 First option—complete passive protection system—driver only. The vehicle shall meet the crash protection requirements of S5., with respect to an anthropomorphic test device in the driver's designated seating position, by means that require no action by vehicle occupants.

S4.4.2 Second option—belt system—driver only. The vehicle shall, at the driver's designated seating position, have either a Type 1 or a Type 2 seat-belt assembly that conforms to § 571.209.

S4.5 Other general requirements.

S4.5.1 Labeling and driver's manual information. Each vehicle shall have a label setting forth the manufacturer's recommended schedule for the maintenance or replacement, necessary to retain the performance required by this standard, of any crash deployed occupant protection system. The schedule shall be specified by month and year, or in terms of vehicle mileage, or by intervals measured from the date appearing on the vehicle certification label provided pursuant to 49 CFR Part 567. The label shall be permanently affixed to the vehicle within the passenger compartment and lettered in English in block capitals and numerals not less than three thirty-seconds of an inch high. Instructions concerning maintenance or replacement of the system and a description of the functional op-

eration of the system shall be provided with each vehicle, with an appropriate reference on the label. If a vehicle owner's manual is provided, this information shall be included in the manual.

S4.5.2 Readiness indicator. An occupant protection system that deploys in the event of a crash shall have a monitoring system with a readiness indicator. The indicator shall monitor its own readiness and shall be clearly visible from the driver's designated seating position. A list of the elements of the system being monitored by the indicator shall be included with the information furnished in accordance with S4.5.1 but need not be included on the label.

S4.5.3 Automatic belts. Except as provided in S4.5.3.1, a seat belt assembly that requires no action by vehicle occupants (hereinafter referred to as an "automatic belt") may be used to meet the crash protection requirements of any option under S4. and in place of any seat belt assembly otherwise required by that option.

S4.5.3.1 An automatic belt that provides only pelvic restraint may not be used pursuant to S4.5.3 to meet the requirements of an option that requires a Type 2 seat belt assembly.

S4.5.3.2 An automatic belt, furnished pursuant to S4.5.3, that provides both pelvic and upper torso restraint may have either a detachable or nondetachable upper torso portion, notwithstanding provisions of the option under which it is furnished.

S4.5.3.3 An automatic belt furnished pursuant to S4.5.3 shall:

(a) Conform to S7.1 and have a single emergency release mechanism whose components are readily accessible to a seated occupant.

(b) In place of a warning system that conforms to S7.3 of this standard, be equipped with the following warning system: At the left front outboard designated seating positions (driver's position), be equipped with a warning system that activates a continuous or intermittent audible signal for a period of not less than 4 seconds and not more than 8 seconds (beginning when the vehicle ignition switch is moved to the "on" or the "start" position) when condition (A) exists simul-

taneously with either condition (B) or condition (C), and that activates a continuous or flashing warning light, visible to the driver, displaying the identifying symbol for the seat belt telltale shown in Table 2 of FMVSS 101 or, at the option of the manufacturer if permitted by FMVSS 101, displaying the words "Fasten Seat Belts" or "Fasten Belts".

(A) The vehicle's ignition switch is moved to the "on" position or to the "start" position.

(B) The driver's automatic belt is not in use, as determined by the belt latch mechanism not being fastened or, if the automatic belt is nonseparable, by the emergency release mechanism being in the released position.

(C) The belt webbing of a motorized automatic belt system is not in its locked, protective mode at the anchorage point.

S4.5.3.4 An automatic belt furnished pursuant to S4.5.3 that is not required to meet the perpendicular frontal crash protection requirements of S5.1 shall conform to the webbing, attachment hardware, and assembly performance requirements of Standard No. 209.

S5. Occupant crash protection requirements.

S5.1 Frontal barrier crash. When the vehicle traveling longitudinally forward at any speed up to and including 30 mph, impacts a fixed collision barrier that is perpendicular to the line of travel of the vehicle, or at any angle up to 30° in either direction from the perpendicular to the line of travel of the vehicle, under the applicable conditions of S8, with anthropomorphic test devices at each designated seating position described in (a) or (b) for which a barrier crash test is required under S4., it shall meet the injury criteria of S6. An anthropomorphic test device shall be placed—

(a) In the case of a vehicle equipped with front bucket seats, at each front designated seating position; and

(b) In the case of a vehicle equipped with a front bench seat, at the driver's designated seating position and at any other one front designated seating position.

S5.2 Lateral moving barrier crash. When the vehicle is impacted laterally

on either side by a barrier moving at 20 mph, with a test device at the front outboard designated seating position adjacent to the impacted side, under the applicable conditions of S8., it shall meet the injury criteria of S6.2 and S6.3.

S5.3 Rollover. When the vehicle is subjected to a rollover test in either lateral direction at 30 mph with a test device in the front outboard designated seating position on its lower side as mounted on the test platform, under the applicable conditions of S8, it shall meet the injury criteria of S6.1.

S6. Injury criteria.

S6.1 All portions of the test device shall be contained within the outer surfaces of the vehicle passenger compartment throughout the test.

S6.2 The resultant acceleration at the center of gravity of the head shall be such that the expression:

$$\left[\frac{1}{(t_2 - t_1)} \int_{t_1}^{t_2} a dt \right]^{2.5} (t_2 - t_1)$$

shall not exceed 1,000, where a is the resultant acceleration expressed as a multiple of g (the acceleration of gravity), and t_1 and t_2 are any two points in time during the crash. However, in the case of a passenger car manufactured before August 31, 1976, or a truck or multipurpose passenger vehicle with a GVWR of 10,000 pounds or less manufactured before August 15, 1977, when the dummy is restrained by a seatbelt system, t_1 and t_2 are any two points in time during any interval in which the head is in continuous contact with a part of the vehicle other than the belt system.

S6.3 The resultant acceleration at the center of gravity of the upper thorax shall not exceed 60g's, except for intervals whose cumulative duration is not more than 3 milliseconds. However, in the case of a passenger car manufactured before August 31, 1976, or a truck or multipurpose passenger vehicle with a GVWR of 10,000 pounds or less manufactured before August 15, 1977, the resultant acceleration at the center of gravity of the upper thorax shall be such that the

severity index calculated by the method described in SAE Information Report J885a, October 1966, shall not exceed 1,000.

S6.4 The comprehensive force transmitted axially through each upper leg shall not exceed 2,250 pounds.

S7. Seat belt assembly requirements—passenger cars.

S7.1 Adjustment.

S7.1.1 Except as specified in S7.1.1.1 and S7.1.1.2, the lap belt of any seat belt assembly furnished in accordance with S4.1.1 and S4.1.2 shall adjust by means of an emergency-locking or automatic-locking retractor that conforms to § 571.209 to fit persons whose dimensions range from those of a 50th-percentile 6-year-old child to those of a 95th-percentile adult male and the upper torso restraint shall adjust by means of an emergency-locking retractor or a manual adjusting device that conforms to § 571.209 to fit persons whose dimensions range from those of a 5th-percentile adult female to those of a 95th-percentile adult male, with the seat in any position and the seat back in the manufacturer's nominal design riding position. However, an upper torso restraint furnished in accordance with S4.1.2.3.1(a) shall adjust by means of an emergency-locking retractor that conforms to Standard No., 209.

S7.1.1.1 A seat belt assembly installed at the driver's seating position shall adjust to fit persons whose dimensions range from those of a 5th-percentile adult female to those of a 95th-percentile adult male.

S7.1.1.2 (a) A seat belt assembly installed in a motor vehicle other than a forward control vehicle at any designated seating position other than the outboard positions of the front and second seats shall adjust either by a retractor as specified in S7.1.1 or by a manual adjusting device that conforms to § 571.209.

(b) A seat belt assembly installed in a forward control vehicle at any designated seating position other than the front outboard seating positions shall adjust either by a retractor as specified in S7.1.1 or by a manual adjusting device that conforms to § 571.209.

S7.1.1.3 A lap belt installed at any front outboard designated seating position in a vehicle manufactured on or after September 1, 1986, shall meet the requirements of this section by means of an emergency-locking retractor that conforms to Standard No. 209 (571.209) of this chapter.

S7.1.1.4 Notwithstanding the other provisions of S7.1-S7.1.1.3, emergency-locking retractors on belt assemblies located in positions other than front outboard designated seating positions may be equipped with a manual webbing adjustment device capable of causing the retractor that adjusts the lap belt to lock when the belt is buckled.

S7.1.2 The intersection of the upper torso belt with the lap belt in any Type 2 seat belt assembly furnished in accordance with S4.1.1 or S4.1.2, with the upper torso manual adjusting device, if provided, adjusted in accordance with the manufacturer's instructions, shall be at least 6 inches from the front vertical centerline of a 50th-percentile adult male occupant, measured along the centerline of the lap belt, with the seat in its rearmost and lowest adjustable position and with the seat back in the manufacturer's nominal design riding position.

S7.1.3 The weights and dimensions of the vehicle occupants specified in this standard are as follows:

	50th-percentile 6-year old child	5th-percentile adult female	50th-percentile adult male	95th-percentile adult male
Weight.....	47.3	102 pounds	164 pounds	215 pounds.
Erect sitting height.....	25.4 inches.	30.9 inches.	35.7 inches.	38 inches.
Hip breadth (sitting).....	18.4 inches.	12.8 inches.	14.5 inches.	16.5 inches.
Hip circumference (sitting).....	23.9 inches.	36.4 inches.	42 inches.	47.2 inches.
Waist circumference (sitting).....	20.8 inches.	23.6 inches.	33 inches.	42.5 inches.
Chest depth.....		7.5 inches.	9 inches.	10.5 inches.
Chest circumference:				
(nipple).....		30.5 inches.		
(upper).....		29.8 inches.	37.7 inches.	44.5 inches.
(lower).....		26.8 inches.		

S7.2 Latch mechanism. A seat belt assembly installed in a passenger car, except an automatic belt assembly, shall have a latch mechanism—

(a) Whose components are accessible to a seated occupant in both the stowed and operational positions;

(b) That releases both the upper torso restraint and the lap belt simultaneously, if the assembly has a lap belt and an upper torso restraint that require unlatching for release of the occupant; and

(c) That releases at a single point by a pushbutton action.

S7.3 A seat belt assembly provided at the driver's seating position shall be equipped with a warning system that activates, for a period of not less than 4 seconds and not more than 8 seconds (beginning when the vehicle ignition switch is moved to the "on" or the "start" position), a continuous or flashing warning light, visible to the driver, displaying the identifying symbol for the seat belt telltale shown in Table 2 of FMVSS 101 or, at the

option of the manufacturer if permitted by FMVSS 101, displaying the words "Fasten Seat Belts" or "Fasten Belts", when condition (a) exists, and a continuous or intermittent audible signal when condition (a) exists simultaneously with condition (b).

(a) The vehicle's ignition switch is moved to the "on" position or to the "start" position.

(b) The driver's lap belt is not in use, as determined, at the option of the manufacturers, either by the belt latch mechanism not being fastened, or by the belt not being extended at least 4 inches from its stowed position.

S7.4 Seat belt comfort and convenience. (a) Automatic seat belts installed in any vehicle with a GVWR of 10,000 pounds or less manufactured on or after September 1, 1986, shall meet the requirements of S7.4.1, S7.4.2, and S7.4.3.

(b) Manual seat belts, other than manual Type 2 belts in front seating positions in passenger cars, installed in any vehicle with a GVWR of 10,000

pounds or less manufactured on or after September 1, 1986, shall meet the requirements of S7.4.3, S7.4.4, S7.4.5, and S7.4.6.

S7.4.1 Convenience hooks. Any manual convenience hook or other device that is provided to stow seat belt webbing to facilitate entering and exiting the vehicle shall automatically release the webbing and shall remain in the released mode for as long as (a) exists simultaneously with (b), at the manufacturer's option where applicable, or for as long as (a) exists simultaneously with (c)—

(a) The vehicle ignition switch is moved to the "on" or "start" position;

(b) The vehicle's drive train is engaged;

(c) In the case of manual transmission vehicles, the vehicle's parking brake is in the released mode (not engaged).

S7.4.2 Webbing tension-relieving device. Any automatic seat belt assembly that includes either manual or automatic devices that permit the introduction of slack in the webbing of the upper torso restraint (e.g., "comfort clips" or "window-shade" devices) shall comply with the injury criteria of S5 of this standard with the belt webbing in any position to which it can be adjusted. Any belt slack that can be introduced into the belt system by means of any tension-relieving device or design shall be cancelled each time the adjacent vehicle door is opened.

S7.4.3 Belt Contact Force. When tested in accordance with S10.6, the upper torso webbing of any seat belt assembly shall not exert more than 0.7 pounds of contact force when measured normal to and one inch from the chest of an anthropomorphic test dummy, positioned in accordance with S8.1.11 in the seating position for which that assembly is provided, at the point where the centerline of the torso belt crosses the midsagittal line on the dummy's chest.

S7.4.4 Latchplate Access. The latchplate of any seat belt assembly shall be located within the outboard reach envelope of either the outboard arm or the inboard arm described in S10.5 and Figure 3 of this standard. There shall be sufficient clearance between

the vehicle seat and the side of the vehicle interior to allow unhindered transit of the test block defined in Figure 4 of this standard to the latchplate or buckle.

S7.4.5 Retraction. When tested under the conditions of S8.1.2 and S8.1.3, with anthropomorphic test dummies whose arms have been removed positioned in the front outboard designated seating positions in accordance with S8.1.11, and restrained by the belt systems for those positions, the torso and lap belt webbing of any of those seat belt systems shall automatically retract to their completely stowed position when the latchplate is released from the buckle and the adjacent vehicle door is in the open position.

S7.4.6 Seat Belt Guides and Hardware.

S7.4.6.1 Except for rear seats that tumble, the webbing of a manual seat belt assembly that is designed to pass through the seat cushion or between the seat cushion and seat back shall pass either through guide openings in the surface of the seat cushion or through flexible conduits between the seat cushion and seat back to maintain the location of the seat belt latchplate and buckle on the seat cushion.

S7.4.6.2 The buckle and latchplate of a manual seat belt assembly subject to S7.4.6.1 shall not pass through the guides or conduits provided for in S7.4.6.1 and fall behind the seat when the events listed below occur in the order specified: (a) The belt is completely retracted or, if the belt is non-retractable, the belt is unlatched; (b) the seat is moved to any position to which it is designed to be adjusted; and (c) the seat back, if foldable, is folded forward as far as possible and then moved backward into position. The inboard receptacle end of a seat belt assembly installed at a front outboard designated seating position shall be accessible with the center arm rest in any position to which it can be adjusted (without having to move the armrest).

S8. Test conditions.

S8.1 General conditions. The following conditions apply to the frontal, lateral, and rollover tests.

S8.1.1 Except as provided in paragraph (c) of this section, the vehicle, including test devices and instrumentation is loaded as follows:

(a) *Passenger cars.* A passenger car is loaded to its unloaded vehicle weight plus its rated cargo and luggage capacity weight, secured in the luggage area, plus the weight of the necessary anthropomorphic test devices.

(b) *Multipurpose passenger vehicles, trucks, and buses.* A multipurpose passenger vehicle, truck, or bus is loaded to its unloaded vehicle weight plus 300 pounds or its rated cargo and luggage capacity weight, whichever is less, secured in the load carrying area and distributed as nearly as possible in proportion to its gross axle weight ratings, plus the weight of the necessary anthropomorphic test devices.

(c) The fuel tank is filled to any level from 90 to 95 percent of capacity.

S8.1.2 Adjustable seats are in the adjustment position midway between the forwardmost and rearmost positions, and if separately adjustable in a vertical direction, are at the lowest position. If an adjustment position does not exist midway between the forwardmost and rearmost positions, the closest adjustment position to the rear of the midpoint is used.

S8.1.3 Adjustable seat backs are in the manufacturer's nominal design riding position. If a nominal position is not specified, the seat back is positioned so that the accelerometer surface in the dummy head, as positioned in the vehicle, is horizontal. If the vehicle is equipped with adjustable head restraints, each is adjusted to its highest adjustment position.

S8.1.4 Adjustable steering controls are adjusted so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions.

S8.1.5 Movable vehicle windows and vents are in the fully closed position.

S8.1.6 Convertibles and open-body type vehicles have the top, if any, in place in the closed passenger compartment configuration.

S8.1.7 Doors are fully closed and latched but not locked.

S8.1.8 Anthropomorphic test devices used for the evaluation of restraint

systems manufactured pursuant to applicable portions of paragraphs S4.1.2 and S4.1.3 shall conform to the requirements of Subpart B of Part 572 of this title for a 50th percentile adult male dummy.

S8.1.9 Each test dummy is clothed in formfitting cotton stretch garments with short sleeves and midcalf length pants. Each foot of the dummy is equipped with a size 11EE shoe which meets the configuration, size, sole, and heel thickness specifications of MIL-J-13192 and weighs 1.25 ± 0.2 pounds.

S8.1.10 Limb joints are set at 1g, barely restraining the weight of the limb when extended horizontally. Leg joints are adjusted with the torso in the supine position.

S8.1.11 *Dummy placement in vehicle.* Anthropomorphic test dummies are placed in the vehicle in accordance with S8.1.11.1 and S8.1.11.2, and except as otherwise specified, the dummies are not restrained during an impact by any means that require occupant action.

S8.1.11.1 *Vehicle equipped with front bucket seats.* In the case of a vehicle equipped with front bucket seats, dummies are placed at the front outboard designated seating positions with the test device torso against the seat back, and the thighs against the seat cushion to the extent permitted by placement of the dummy's feet in accordance with the appropriate paragraph of S8.1.11. The dummy is centered on the seat cushion of the bucket seat and its midsagittal plane is vertical and longitudinal.

S8.1.11.1.1 *Driver position placement.* At the driver's position, the knees of the dummy are initially set 14.5 inches apart, measured between the outer surfaces of the knee pivot bolt heads, with the left outer surface 5.9 inches from the midsagittal plane of the dummy. The right foot of the dummy rests on the undepressed accelerator pedal with the rearmost point of the heel on the floorpan in the plane of the pedal. If the foot cannot be placed on the accelerator pedal, it is set perpendicular to the tibia and placed as far forward as possible in the direction of the geometric center of the pedal with the rearmost point of the heel resting on the floor-

pan. The plane defined by the femur and tibia centerlines of the right leg is as close as possible to vertical without inducing torso movement and except as prevented by contact with a vehicle surface. The left foot is placed on the toeboard with the rearmost point of the heel resting on the floorpan as close as possible to the point of intersection of the planes described by the toeboard and the floorpan. If the foot cannot be positioned on the toeboard, it is set perpendicular to the tibia and placed as far forward as possible with the heel resting on the floorpan. The femur and tibia centerlines of the left leg fall in a vertical plane except as prevented by contact with a vehicle surface.

S8.1.11.1.2 Passenger position placement. At the right front designated seating position, the femur, tibia, and foot centerlines of each of the dummy's legs fall in a vertical longitudinal plane. The feet of the dummy are placed on the toeboard with the rearmost point of the heel resting on the floorpan as close as possible to the point of intersection of the planes described by the toeboard and the floorpan. If the feet cannot be positioned flat on the toeboard they are set perpendicular to the tibia and are placed as far forward as possible with the heels resting on the floorpan.

S8.1.11.2 Vehicle equipped with bench seating. In the case of a vehicle which is equipped with a front bench seat, a dummy is placed at the left front outboard designated seating position and at one of the two other designated seating positions (or at the only other seating position if only one is provided), with the dummy torso against the seat back and the thighs against the seat cushion to the extent permitted by placement of the dummy's feet in accordance with the appropriate paragraph of S8.1.11.1.

S8.1.11.2.1 Driver position placement. The dummy is placed at the left front outboard designated seating position so that its midsagittal plane is vertical and longitudinal, and passes through the center point of the plane described by the steering wheel rim. The legs, knees, and feet of the dummy are placed as specified in S8.1.11.1.1.

S8.1.11.2.2 Center position placement. If a dummy is placed in the center front designated seating position, it is placed so that its midsagittal plane is vertical and longitudinal, and 19.5 inches to right of the midsagittal plane of the dummy at the driver's position. In the case of a vehicle with a drive line tunnel, the left foot of the dummy is placed flat on the floor so that the centerline of the foot is coincident with the centerline of the vehicle, as far forward as possible without touching any other vehicle component. The left knee is located such that a plane defined by the femur centerline and tibia centerline is as close as possible to the vertical without inducing torso movement. The right foot of the dummy is placed on the toeboard with the rearmost point of the heel resting at the intersection of the toeboard and the floor pan and the left side of the dummy's right shoe sole in contact with the drive line tunnel where it intersects the plane of the floor pan. If the foot cannot be placed on the toeboard it is set perpendicular to the tibia and placed as far forward as possible with the heel resting on the floor pan and the left side of the dummy's right shoe sole in contact with the drive line tunnel where it intersects the plane of the floor pan. The right knee is located such that the plane defined by the femur centerline and the tibia centerline is as close as possible to the vertical without inducing torso displacement or rotation. If the vehicle has no drive line tunnel, leg and foot placement conform to the conditions of S8.1.11.1.2.

S8.1.11.2.3 Passenger position placement. The dummy is placed at the right front outboard designated seating position as specified in S8.1.11.1.2, except that the midsagittal plane of the dummy is vertical, longitudinal, and the same distance from the longitudinal centerline as the midsagittal plane of the dummy at the driver's position.

S8.1.12 Instrumentation does not affect the motion of dummies during impact or rollover.

S8.1.13 The stabilized temperature of the test instrument specified by S8.1.8 is at any level between 66 F. and 78 F.

S8.2 Lateral moving barrier crash test conditions. The following conditions apply to the lateral moving barrier crash test.

S8.2.1 The moving barrier, including the impact surface, supporting structure, and carriage, weighs 4,000 pounds.

S8.2.2 The impact surface of the barrier is a vertical, rigid, flat rectangle, 78 inches wide and 60 inches high, perpendicular to its direction of movement, with its lower edge horizontal and 5 inches above the ground surface.

S8.2.3 During the entire impact sequence the barrier undergoes no significant amount of dynamic or static deformation, and absorbs no significant portion of the energy resulting from the impact, except for energy that results in translational rebound movement of the barrier.

S8.2.4 During the entire impact sequence the barrier is guided so that it travels in a straight line, with no significant lateral, vertical or rotational movement.

S8.2.5 The concrete surface upon which the vehicle is tested is level, rigid and of uniform construction, with a skidnumber of 75 when measured in accordance with American Society for Testing and Materials Method E-274-65T at 40 m.p.h., omitting water delivery as specified in paragraph 7.1 of that method.

S8.2.6 The tested vehicle's brakes are disengaged and the transmission is in neutral.

S8.2.7 The barrier and the test vehicle are positioned so that at impact—

(a) The vehicle is at rest in its normal attitude;

(b) The barrier is traveling in a direction perpendicular to the longitudinal axis of the vehicle at 20 m.p.h.; and

(c) A vertical plane through the geometric center of the barrier impact surface and perpendicular to that surface passes through the driver's seating reference point in the tested vehicle.

S8.3 Rollover test conditions. The following conditions apply to the rollover test.

S8.3.1 The tested vehicle's brakes are disengaged and the transmission is in neutral.

S8.3.2 The concrete surface on which the test is conducted is level, rigid, of uniform construction, and of a sufficient size that the vehicle remains on it throughout the entire rollover cycle. It has a skid number of 75 when measured in accordance with American Society for Testing and Materials Method E-274-65T at 40 m.p.h. omitting water delivery as specified in paragraph 7.1 of that method.

S8.3.3 The vehicle is placed on a device, similar to that illustrated in Figure 2, having a platform in the form of a flat, rigid plane at an angle of 23° from the horizontal. At the lower edge of the platform is an unyielding flange, perpendicular to the platform with a height of 4 inches and a length sufficient to hold in place the tires that rest against it. The intersection of the inner face of the flange with the upper face of the platform is 9 inches above the rollover surface. No other restraints are used to hold the vehicle in position during the deceleration of the platform and the departure of the vehicle.

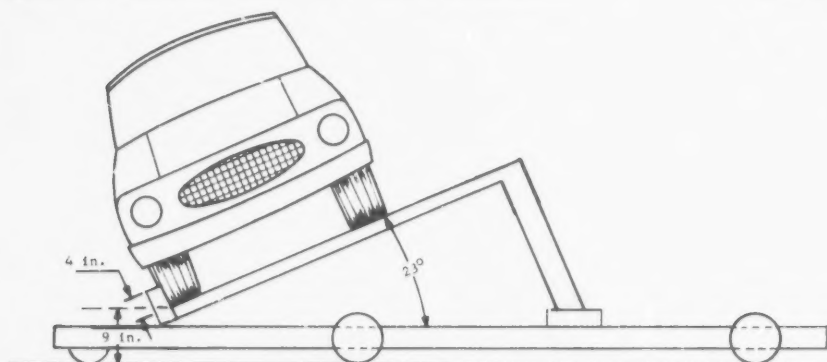


FIGURE 2 - TYPICAL DEVICE FOR ROLLOVER TEST

S8.3.4 With the vehicle on the test platform, the test devices remain as nearly as possible in the posture specified in S8.1.

S8.3.5 Before the deceleration pulse, the platform is moving horizontally, and perpendicularly to the longitudinal axis of the vehicle, at a constant speed of 30 m.p.h. for a sufficient period of time for the vehicle to become motionless relative to the platform.

S8.3.6 The platform is decelerated from 30 to 0 m.p.h. in a distance of not more than 3 feet, without change of direction and without transverse or rotational movement during the deceleration of the platform and the departure of the vehicle. The deceleration rate is at least 20g for a minimum of 0.04 seconds.

S9. *Pressure vessels and explosive devices.*

S9.1 *Pressure vessels.* A pressure vessel that is continuously pressurized shall conform to the requirements of §§ 178.65-2, 178.65-6(b), 178.65-7, 178.65-9 (a) and (b), and 178.65-10 of this title. It shall not leak or evidence visible distortion when tested in accordance with § 178.65-11(a) of this title and shall not fail in any of the ways enumerated in § 178.65-11(b) of this title when hydrostatically tested to destruction. It shall not crack when flattened in accordance with § 178.65-12(a) of this title to the limit specified in § 178.65-12(a)(4) of this title.

S9.2 *Explosive devices.* An explosive device shall not exhibit any of the characteristics prohibited by § 173.51 of this title. All explosive material shall be enclosed in a structure that is capable of containing the explosive energy without sudden release of pressure except through overpressure relief devices or parts designed to release the pressure during actuation.

S10. *Dummy positioning procedures.* The dummy is positioned on a seat as specified in S10.1 through S10.3 to achieve the conditions of S8.1.11.

S10.1 *Initial dummy placement.* With the dummy at its designated seating position as described in S8.1.11, place the upper arms against the seat back and tangent to the side of the upper torso and the lower arms and palms against the outside of the thighs.

S10.2 *Dummy settling.* With the dummy positioned as specified in S10.1, slowly lift the dummy in the direction parallel to the plane of the seat back until its buttocks no longer contact the seat cushion or until its head contacts the vehicle roof. Using a flat, square, rigid surface with an area of 9 square inches and oriented so that its edges fall in longitudinal or horizontal planes, apply a force of 50 pounds through the center of the rigid surface against the dummy's torso in the horizontal rearward direction

along a line that is coincident with the midsagittal plane of the dummy and 5.5 inches above the bottom surface of its buttocks. Slowly remove the lifting force.

S10.2.1 While maintaining the contact of the force application plate with the torso, remove as much force as is necessary from the dummy's torso to allow the dummy to return to the seat cushion by its own weight.

S10.2.2 Without removing the force applied to the lower torso, apply additional force in the horizontal, forward direction, longitudinally against the upper shoulders of the dummy sufficient to flex the torso forward until the dummy's back above the lumbar spine no longer contacts the seatback. Rock the dummy from side to side three times, so that the dummy spine is at any angle from the vertical of not less than 14 degrees and not more than 16 degrees at the extreme of each movement. With the midsagittal plane vertical, push the upper half of the torso back against the seat back with a force of 50 pounds applied in the horizontal rearward direction along a line that is coincident with the midsagittal plane of the dummy and 18 inches above the bottom surface of its buttocks. Slowly remove the horizontal force.

S10.3 *Placement of dummy arms and hands.* With the dummy positioned as specified in S10.2 and without inducing torso movement, place the arms, elbows, and hands of the dummy, as appropriate for each designated seating position in accordance with S10.3.1 or S10.3.2. Following placement of the limbs, remove the force applied against the lower half of the torso.

S10.3.1 *Driver's position.* Move the upper and the lower arms of the dummy at the driver's position to fully outstretched position in the lowest possible orientation. Push each arm rearward, permitting bending at the elbow, until the palm of each hand contacts the outer part of the rim of the steering wheel at its horizontal centerline. Place the dummy's thumbs over the steering wheel rim, positioning the upper and lower arm centerlines as close as possible in a vertical

plane without inducing torso movement.

S10.3.2 *Passenger position.* Move the upper and the lower arms of the dummy at the passenger position to fully outstretched position in the lowest possible orientation. Push each arm rearward, permitting bending at the elbow, until the upper arm contacts the seat back and is tangent to the upper part of the side of the torso, the palm contacts the outside of the thigh, and the little finger is barely in contact with the seat cushion.

S10.5 The reach envelopes specified in S7.4.7 are obtained by positioning an anthropomorphic test dummy in the driver's seat or passenger's seat in its forwardmost adjustment position. Attach the lines for the inboard and outboard arms to the test dummy as described in Figure 3 of this standard. Extend each line backward and outboard to generate the compliance arcs of the outboard reach envelopes of the test dummy's arms.

S10.6 To determine compliance with S7.4.3 of this standard, position the anthropomorphic test dummy in the vehicle in accordance with S8.1.11 and under the conditions of S8.1.2 and S8.1.3. Pull the belt webbing three inches from the dummy's chest and release until the webbing is within 1 inch of the dummy's chest and measure belt pressure.

S11. On and before August 31, 1981, a manufacturer, at its option in place of the conditions specified in S10 and the procedures specified in S8.1.2, S8.1.3, S8.1.9, and S8.1.11 through S8.1.13, may follow the procedures of S11.1 through S11.8.

S11.1 Adjustable seats are in the adjustment position midway between the forwardmost and rearmost positions, and if separately adjustable in a vertical direction, are at the lowest position.

S11.2 Adjustable seat backs are in the manufacturer's nominal design riding position.

S11.3 Each test device is clothed in form-fitting cotton stretch garments.

S11.4 Each test device is firmly placed in a designated seating position in the following manner.

(a) The head is aligned by placing the test device on its back on a rigid,

level surface and by adjusting the head so that it touches the level surface and is laterally centered with respect to the device's axis of symmetry.

(b) The test device is placed in the vehicle in the normal upright sitting posture, and a rigid roller, 6 inches in diameter and 24 inches long, is placed transversely as low as possible against the front of the torso.

(c) The roller is pressed horizontally against the torso with a force of 50 pounds.

(d) Force is applied at the shoulder level to bend the torso forward over the roller, flexing the lower back, and to return the test device to the upright sitting posture.

(e) The roller is slowly released.

S11.5 Except as otherwise herein specified, the test devices are not restrained during impacts by any means that require occupant action.

S11.6 The hands of the test device in the driver's designated seating position are on the steering wheel rim at the horizontal centerline. The right foot rests on the undepressed accelerator pedal, with the heel in contact with the point where the centerline of the upper surface of the undepressed accelerator pedal intersects the upper surface of the floor covering. The left leg is placed as in S11.7.

S11.7 The hands of each other test device are resting on the seat with the palms touching the legs, and the upper arms are resting against the seat back and flush with the body. Where possible, the legs are outstretched, with the thighs on the seat and the heels touching the floor with the foot at 90° to the tibia. Otherwise, the tibia are vertical with the feet resting on the floor. The left leg of a test device in the center front designated seating position is on the vehicle centerline, and the right leg is in the right footwell. The left and right legs of a test device in the center rear designated seating position are in the left and right footwells, respectively.

S11.8 Instrumentation does not affect the motion of test devices during impact or rollover.

NOTE: The concept of an occupant protection system that requires "no action by vehicle occupants" as used in Standard No. 208 is intended to designate a system that requires no action other than would be required if the protective system were not present in the vehicle. Under this interpretation the concept does not include "forced action" systems as described above.

This interpretation is not intended to rule out the possibility that further rulemaking action may be taken in the future to permit such systems in certain cases.

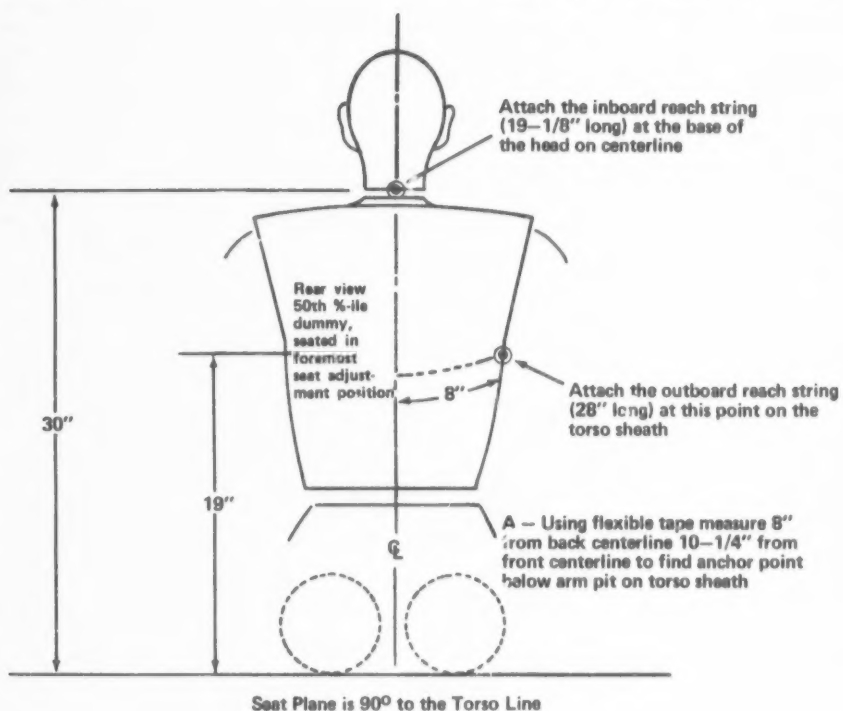


Figure 3 — Location of Anchoring Points for Latchplate Reach Limiting Chains or Strings to Test for Latchplate Accessibility

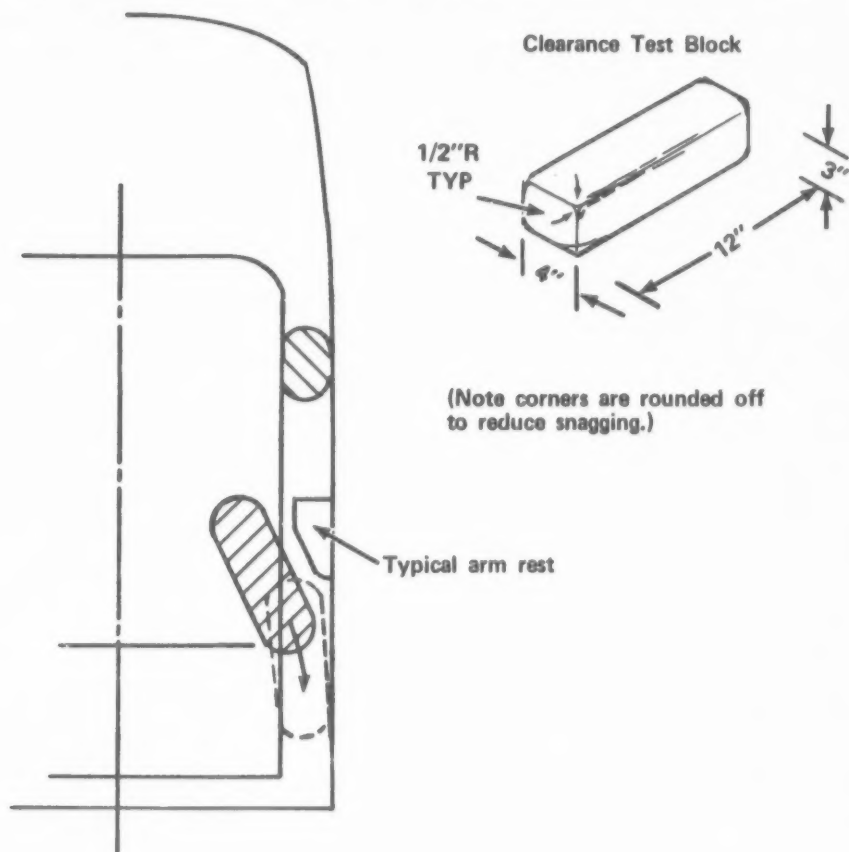


Figure 4 — Use of Clearance Test Block
to Determine Hand/Arm Access

(Delegation of authority at 38 FR 12147)
(36 FR 22902, Dec. 2, 1971)

EDITORIAL NOTE: For Federal Register citations affecting § 571.208, see the List of CFR Sections Affected in the Finding Aids section of this volume.

AUTOMATIC OCCUPANT RESTRAINT REQUIREMENTS

EFFECTIVE DATE NOTES:

1. At 49 FR 29009, July 17, 1984, S4.1.2—S4.1.2.2 and S4.1.3—S4.1.3.4 were revised and S4.1.4—S4.1.5.2 were added (automatic occupant restraint requirements), effective August 16, 1984. That document also provided for the following:

"The principal compliance dates for the rule, unless two-thirds of the population are covered by mandatory use laws, are:

September 1, 1986—for phase-in requirement.

September 1, 1989—for full implementation requirement.

In addition: February 1, 1985—for center seating position exemption from automatic restraint provisions."

2. At 50 FR 35237, Aug. 30, 1985, the first sentence in S4.1.2 was revised to correct the word "after" the second time it appears to read "before"; in S4.1.2.2(b) the spelling of "outboard" was corrected to read "outboard"; and S4.1.3.4 was revised, effective October 15, 1985. For the convenience of the user, the superseded text of S4.1.3.4 is shown below.

§ 571.208 Standard No. 208: Occupant crash protection.

* * *

S4.1.3.4 For the purposes of calculating the numbers of cars manufactured under S4.1.3.1.2, S4.1.3.2.2 or S4.1.3.3.2 to comply with S4.1.2.1, each car whose driver's seating position will comply with these requirements by means other than any type of seat belt is counted as 1.5 vehicles.

* * *

COMFORT AND CONVENIENCE REQUIREMENTS

EFFECTIVE DATE NOTE: At 46 FR 2072, Jan. 8, 1981, amendments to § 571.208 relating to seat belt comfort and convenience requirements were published, effective September 1, 1982. At 47 FR 7255, Feb. 18, 1982, 48 FR 24718, June 2, 1983 and 50 FR 34152, Aug. 23, 1985, the requirements were delayed until September 1, 1983, September 1, 1985, and September 1, 1986, respectively. (The user may consult Title 49, Code of Federal Regulations, Parts 400-999, revised as of October 1, 1980 for the text of § 571.208 prior

to the publication of the comfort and convenience requirements.)

Because of the complexity of the rulemaking issues in Standard 208, the user is also advised to consult the Federal Register documents affecting § 571.208. The preambles to those documents will provide a better understanding of the history of the comfort and convenience requirements, their relationship to the automatic occupant restraint requirements and will provide a regulatory history relating to the deferral of the effective date of certain amendments. For Federal Register page citations for these documents, consult the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 571.209 Standard No. 209: Seat belt assemblies.

S1. Purpose and scope. This standard specifies requirements for seat belt assemblies.

S2. Application. This standard applies to seat belt assemblies for use in passenger cars, multipurpose passenger vehicles, trucks, and buses.

S3. Definitions. "Seat belt assembly" means any strap, webbing, or similar device designed to secure a person in a motor vehicle in order to mitigate the results of any accident, including all necessary buckles and other fasteners, and all hardware designed for installing such seat belt assembly in a motor vehicle.

"Pelvic restraint" means a seat belt assembly or portion thereof intended to restrain movement of the pelvis.

"Upper torso restraint" means a portion of a seat belt assembly intended to restrain movement of the chest and shoulder regions.

"Hardware" means any metal or rigid plastic part of a seat belt assembly.

"Buckle" means a quick release connector which fastens a person in a seat belt assembly.

"Attachment hardware" means any or all hardware designed for securing the webbing of a seat belt assembly to a motor vehicle.

"Adjustment hardware" means any or all hardware designed for adjusting the size of a seat belt assembly to fit the user, including such hardware that may be integral with a buckle, attachment hardware, or retractor.

"Retractor" means a device for storing part or all of the webbing in a seat belt assembly.

"Nonlocking retractor" means a retractor from which the webbing is extended to essentially its full length by a small external force, which provides no adjustment for assembly length, and which may or may not be capable of sustaining restraint forces at maximum webbing extension.

"Automatic-locking retractor" means a retractor incorporating adjustment hardware by means of a positive self-locking mechanism which is capable when locked of withstanding restraint forces.

"Emergency-locking retractor" means a retractor incorporating adjustment hardware by means of a locking mechanism that is activated by vehicle acceleration, webbing movement relative to the vehicle, or other automatic action during an emergency and is capable when locked of withstanding restraint forces.

"Seat back retainer" means the portion of some seat belt assemblies designed to restrict forward movement of a seat back.

"Webbing" means a narrow fabric woven with continuous filling yarns and finished selvages.

"Strap" means a narrow nonwoven material used in a seat belt assembly in place of webbing.

"Type 1 seat belt assembly" is a lap belt for pelvic restraint.

"Type 2 seat belt assembly" is a combination of pelvic and upper torso restraints.

"Type 2a shoulder belt" is an upper torso restraint for use only in conjunction with a lap belt as a Type 2 seat belt assembly.

"Load-limiter" means a seat belt assembly component or feature that controls tension on the seat belt to modulate the forces that are imparted to occupants restrained by the belt assembly during a crash.

S4. Requirements.

S4.1 (a) *Single occupancy.* A seat belt assembly shall be designed for use by one, and only one, person at any one time.

(b) *Pelvic restraint.* A seat belt assembly shall provide pelvic restraint whether or not upper torso restraint is

provided, and the pelvic restraint shall be designed to remain on the pelvis under all conditions, including collision or roll-over of the motor vehicle. Pelvic restraint of a Type 2 seat belt assembly that can be used without upper torso restraint shall comply with requirement for Type 1 seat belt assembly in S4.1 to S4.4.

(c) *Upper torso restraint.* A Type 2 seat belt assembly shall provide upper torso restraint without shifting the pelvic restraint into the abdominal region. An upper torso restraint shall be designed to minimize vertical forces on the shoulders and spine. Hardware for upper torso restraint shall be so designed and located in the seat belt assembly that the possibility of injury to the occupant is minimized.

A Type 2a shoulder belt shall comply with applicable requirements for a Type 2 seat belt assembly in S4.1 to S4.4, inclusive.

(d) *Hardware.* All hardware parts which contact under normal usage a person, clothing, or webbing shall be free from burrs and sharp edges.

(e) *Release.* A Type 1 or Type 2 seat belt assembly shall be provided with a buckle or buckles readily accessible to the occupant to permit his easy and rapid removal from the assembly. Buckle release mechanism shall be designed to minimize the possibility of accidental release. A buckle with release mechanism in the latched position shall have only one opening in which the tongue can be inserted on the end of the buckle designed to receive and latch the tongue.

(f) *Attachment hardware.* A seat belt assembly shall include all hardware necessary for installation in a motor vehicle in accordance with Society of Automotive Engineers Recommended Practice J800c, "Motor Vehicle Seat Belt Installation," November 1973. However, seat belt assemblies designed for installation in motor vehicles equipped with seat belt assembly anchorages that do not require anchorage nuts, plates, or washers, need not have such hardware, but shall have 7/16-20 UNF-2A or 1/2-13UNC-2A attachment bolts or equivalent hardware. The hardware shall be designed to prevent attachment bolts and other parts from becoming disengaged from

the vehicle while in service. Reinforcing plates or washers furnished for universal floor installations shall be of steel, free from burrs and sharp edges on the peripheral edges adjacent to the vehicle, at least 0.06 inch in thickness and at least 4 square inches in projected area. The distance between any edge of the plate and the edge of the bolt hole shall be at least 0.6 inch. Any corner shall be rounded to a radius of not less than 0.25 inch or cut so that no corner angle is less than 135° and no side is less than 0.25 inch in length.

(g) *Adjustment.* (1) A Type 1 or Type 2 seat belt assembly shall be capable of adjustment to fit occupants whose dimensions and weight range from those of a 5th-percentile adult female to those of a 95th-percentile adult male. The seat belt assembly shall have either an automatic-locking retractor, an emergency-locking retractor, or an adjusting device that is within the reach of the occupant.

(2) A Type 1 or Type 2 seat belt assembly for use in a vehicle having seats that are adjustable shall conform to the requirements of S4.1(g)(1) regardless of seat position. However, if a seat has a back that is separately adjustable, the requirements of S4.1(g)(1) need be met only with the seat back in the manufacturer's nominal design riding position.

(3) The adult occupants referred to in S4.1(g)(1) shall have the following measurements:

	5th percentile adult female	95th percentile adult male
Weight	102 lbs	215 lbs
Erect sitting height	30.9 in	36 in
Hip breadth (sitting)	12.8 in	16.5 in
Hip circumference (sitting)	36.4 in	47.2 in
Waist circumference (sitting)	23.6 in	42.5 in
Chest depth	7.5 in	10.5 in
Chest circumference		
Nipple	30.5 in	44.5 in
Upper	29.8 in	44.5 in
Lower	26.6 in	44.5 in

(h) *Webbing.* The ends of webbing in a seat belt assembly shall be protected or treated to prevent raveling. The end of webbing in a seat belt assembly having a metal-to-metal buckle that is used by the occupant to adjust the size

of the assembly shall not pull out of the adjustment hardware at maximum size adjustment. Provision shall be made for essentially unimpeded movement of webbing routed between a seat back and seat cushion and attached to a retractor located behind the seat.

(i) *Strap.* A strap used in a seat belt assembly to sustain restraint forces shall comply with the requirements for webbing in S4.2, and if the strap is made from a rigid material, it shall comply with applicable requirements in S4.2, S4.3, and S4.4.

(j) *Marking.* Each seat belt assembly shall be permanently and legibly marked or labeled with year of manufacture, model, and name or trademark of manufacturer or distributor, or of importer if manufactured outside the United States. A model shall consist of a single combination of webbing having a specific type of fiber weave and construction, and hardware having a specific design. Webbing of various colors may be included under the same model, but webbing of each color shall comply with the requirements for webbing in S4.2.

(k) *Installation instructions.* A seat belt assembly or retractor shall be accompanied by an instruction sheet providing sufficient information for installing the assembly in a motor vehicle except for a seat belt assembly installed in a motor vehicle by an automobile manufacturer. The installation instructions shall state whether the assembly is for universal installation or for installation only in specifically stated motor vehicles, and shall include at least those items specified in SAE Recommended Practice J800c, "Motor Vehicle Seat Belt Installations," November 1973.

(l) *Usage and maintenance instructions.* A seat belt assembly or retractor shall be accompanied by written instructions for the proper use of the assembly, stressing particularly the importance of wearing the assembly snugly and properly located on the body, and on the maintenance of the assembly and periodic inspection of all components. The instructions shall show the proper manner of threading webbing in the hardware of seat belt assemblies in which the webbing is not

permanently fastened. Instructions for a nonlocking retractor shall include a caution that the webbing must be fully extended from the retractor during use of the seat belt assembly unless the retractor is attached to the free end of webbing which is not subjected to any tension during restraint of an occupant by the assembly. Instructions for Type 2a shoulder belt shall include a warning that the shoulder belt is not to be used without a lap belt.

(m) *Workmanship.* Seat belt assemblies shall have good workmanship in accordance with good commercial practice.

S4.2 Requirements for webbing.

(a) *Width.* The width of the webbing in a seat belt assembly shall be not less than 1.8 inches, except for portions that do not touch a 95th percentile adult male with the seat in any adjustment position and the seat back in the manufacturer's nominal design riding position when measured under the conditions prescribed in S5.1(a).

(b) *Breaking strength.* The webbing in a seat belt assembly shall have not less than the following breaking strength when tested by the procedures specified in S5.1(b): Type 1 seat belt assembly—6,000 pounds or 2,720 kilograms; Type 2 seat belt assembly—5,000 pounds or 2,270 kilograms for webbing pelvic restraint and 4,000 pounds or 1,810 kilograms for webbing in upper torso restraint.

(c) *Elongation.* Except as provided in S4.5, the webbing in a seat belt assembly shall not extend to more than the following elongation when subjected to the specified forces in accordance with the procedure specified in S5.1(c): Type 1 seat belt assembly—20 percent at 2,500 pounds or 1,130 kilograms; Type 2 seat belt assembly—30 percent at 2,500 pounds or 1,130 kilograms for webbing in pelvic restraint and 40 percent at 2,500 pounds or 1,130 kilograms for webbing in upper torso restraint.

(d) *Resistance to abrasion.* The webbing of a seat belt assembly, after being subjected to abrasion as specified in S5.1(d) or S5.3(c), shall have a breaking strength of not less than 75 percent of the breaking strength listed

in S4.2(b) for that type of belt assembly.

(e) *Resistance to light.* The webbing in a seat belt assembly after exposure to the light of a carbon arc and tested by the procedure specified in S5.1(e) shall have a breaking strength not less than 60 percent of the strength before exposure to the carbon arc and shall have a color retention not less than No. 2 on the Geometric Gray Scale published by the American Association of Textile Chemists and Colorists, Post Office Box 886, Durham, N.C.

(f) *Resistance to micro-organisms.* The webbing in a seat belt assembly after being subjected to micro-organisms and tested by the procedures specified in S5.1(f) shall have a breaking strength not less than 85 percent of the strength before subjection to micro-organisms.

(g) *Colorfastness to crocking.* The webbing in a seat belt assembly shall not transfer color to a crock cloth either wet or dry to a greater degree than Class 3 on the AATCC Chart for Measuring Transference of Color published by the American Association of Textile Chemists and Colorists, when tested by the procedure specified in S5.1(g).

(h) *Colorfastness to staining.* The webbing in a seat belt assembly shall not stain to a greater degree than Class 3 on the AATCC Chart for Measuring Transference of Color published by the American Association of Textile Chemists and Colorists, when tested by the procedure specified in S5.1(h).

S4.3 Requirements for hardware.

(a) *Corrosion resistance.* (1) Attachment hardware of a seat belt assembly after being subjected to the conditions specified in S5.2(a) shall be free of ferrous corrosion on significant surfaces except for permissible ferrous corrosion at peripheral edges or edges of holes on underfloor reinforcing plates and washers. Alternatively, such hardware at or near the floor shall be protected against corrosion by at least an electrodeposited coating of nickel, or copper and nickel with at least a service condition number of SC2, and other attachment hardware shall be protected by an electrodeposited coating of nickel, or copper and nickel

with a service condition number of SC1, in accordance with American Society for Testing and Materials B456-79, "Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium," but such hardware shall not be racked for electroplating in locations subjected to maximum stress.

(2) Surfaces of buckles, retractors and metallic parts, other than attachment hardware, of a seat belt assembly after subjection to the conditions specified in S5.2(a) shall be free of ferrous or nonferrous corrosion which may be transferred, either directly or by means of the webbing, to the occupant or his clothing when the assembly is worn. After test, buckles shall conform to applicable requirements in paragraphs (d) to (g) of this section.

(b) *Temperature resistance.* Plastic or other nonmetallic hardware parts of a seat belt assembly when subjected to the conditions specified in S5.2(b) shall not warp or otherwise deteriorate to cause the assembly to operate improperly or fail to comply with applicable requirements in this section and S4.4.

(c) *Attachment hardware.* (1) Eye bolts, shoulder bolts, or other bolts used to secure the pelvic restraint of a seat belt assembly to a motor vehicle shall withstand a force of 9,000 pounds or 4,080 kilograms when tested by the procedure specified in S5.2(c)(1), except that attachment bolts of a seat belt assembly designed for installation in specific models of motor vehicles in which the ends of two or more seat belt assemblies cannot be attached to the vehicle by a single bolt shall have a breaking strength of not less than 5,000 pounds or 2,270 kilograms.

(2) Other attachment hardware designed to receive the ends of two seat belt assemblies shall withstand a tensile force of at least 6,000 pounds or 2,720 kilograms without fracture of any section when tested by the procedure specified in S5.2(c)(2).

(3) A seat belt assembly having single attachment hooks of the quick-disconnect type for connecting webbing to an eye bolt shall be provided with a retaining latch or keeper which shall not move more than 0.08 inch or 2 millimeters in either the vertical or

horizontal direction when tested by the procedure specified in S5.2(c)(3).

(d) *Buckle release.* (1) The buckle of a Type 1 or Type 2 seat belt assembly shall release when a force of not more than 30 pounds or 14 kilograms is applied.

(2) A buckle designed for pushbutton application of buckle release force shall have a minimum area of 0.7 square inch or 4.5 square centimeters with a minimum linear dimension of 0.4 inch or 10 millimeters for applying the release force, or a buckle designed for lever application of buckle release force shall permit the insertion of a cylinder 0.4 inch or 10 millimeters in diameter and 1.5 inches or 38 millimeters in length to at least the midpoint of the cylinder along the cylinder's entire length in the actuation portion of the buckle release. A buckle having other design for release shall have adequate access for two or more fingers to actuate release.

(3) The buckle of a Type 1 or Type 2 seat belt assembly shall not release under a compressive force of 400 pounds applied as prescribed in paragraph S5.2(d)(3). The buckle shall be operable and shall meet the applicable requirement of paragraph S4.4 after the compressive force has been removed.

(e) *Adjustment force.* The force required to decrease the size of a seat belt assembly shall not exceed 11 pounds or 5 kilograms when measured by the procedure specified in S5.2(e).

(f) *Tilt-lock adjustment.* The buckle of a seat belt assembly having tilt-lock adjustment shall lock the webbing when tested by the procedure specified in S5.2(f) at an angle of not less than 30 degrees between the base of the buckle and the anchor webbing.

(g) *Buckle latch.* The buckle latch of a seat belt assembly when tested by the procedure specified in S5.2(g) shall not fail, nor gall or wear to an extent that normal latching and unlatching is impaired, and a metal-to-metal buckle shall separate when in any position of partial engagement by a force of not more than 5 pounds or 2.3 kilograms.

(h) *Nonlocking retractor.* The webbing of a seat belt assembly shall extend from a nonlocking retractor within 0.25 inch or 6 millimeters of

maximum length when a tension is applied as prescribed in S5.2(h). A non-locking retractor on upper torso restraint shall be attached to the nonadjustable end of the assembly, the reel of the retractor shall be easily visible to an occupant while wearing the assembly, and the maximum retraction force shall not exceed 1.1 pounds or 0.5 kilogram in any strap or webbing that contacts the shoulder when measured by the procedure specified in S5.2(h), unless the retractor is attached to the free end of webbing which is not subjected to any tension during restraint of an occupant by the assembly.

(i) *Automatic-locking retractor.* The webbing of a seat belt assembly equipped with an automatic locking retractor, when tested by the procedure specified in S5.2(i), shall not move more than 1 inch or 25 millimeters between locking positions of the retractor, and shall be retracted with a force under zero acceleration of not less than 0.6 pound or 0.27 kilogram when attached to pelvic restraint, and not less than 0.45 pound or 0.2 kilogram nor more than 1.1 pounds or 0.5 kilogram in any strap or webbing that contacts the shoulders of an occupant when the retractor is attached to upper torso restraint. An automatic locking retractor attached to upper torso restraint shall not increase the restraint on the occupant of the seat belt assembly during use in a vehicle traveling over rough roads as prescribed in S5.2(i).

(j) *Emergency-locking retractor.* An emergency-locking retractor of a Type 1 or Type 2 seat belt assembly, when tested in accordance with the procedures specified in paragraph S5.2(j)—

(1) Shall lock before the webbing extends 1 inch when the retractor is subjected to an acceleration of 0.7g;

(2) Shall not lock, if the retractor is sensitive to webbing withdrawal, before the webbing extends 2 inches when the retractor is subjected to an acceleration of 0.3g or less;

(3) Shall not lock, if the retractor is sensitive to vehicle acceleration, when the retractor is rotated in any direction to any angle of 15° or less from its orientation in the vehicle;

(4) Shall exert a retractive force of at least 0.6 pound under zero acceleration when attached only to the pelvic restraint.

(5) Shall exert a retractive force of not less than 0.2 pound and not more than 1.1 pounds under zero acceleration when attached only to an upper torso restraint;

(6) Shall exert a retractive force of not less than 0.2 pound and not more than 1.5 pounds under zero acceleration when attached to a strap or webbing that restrains both the upper torso and the pelvis.

(k) *Performance of retractor.* A retractor used on a seat belt assembly after subsection to the tests specified in S5.2(k) shall comply with applicable requirements in paragraphs (h) to (j) of this section and S4.4, except that the retraction force shall be not less than 50 percent of its original retraction force.

S4.4 Requirements for assembly performance.

(a) *Type 1 seat belt assembly.* Except as provided in S4.5, the complete seat belt assembly including webbing, straps, buckles, adjustment and attachment hardware, and retractors shall comply with the following requirements when tested by the procedures specified in S5.3(a):

(1) The assembly loop shall withstand a force of not less than 5,000 pounds or 2,270 kilograms; that is, each structural component of the assembly shall withstand a force of not less than 2,500 pounds or 1,130 kilograms.

(2) The assembly loop shall extend not more than 7 inches or 18 centimeters when subjected to a force of 5,000 pounds or 2,270 kilograms; that is, the length of the assembly between anchorages shall not increase more than 14 inches or 36 centimeters.

(3) Any webbing cut by the hardware during test shall have a breaking strength at the cut of not less than 4,200 pounds or 1,910 kilograms.

(4) Complete fracture through any solid section of metal attachment hardware shall not occur during test.

(b) *Type 2 seat belt assembly.* Except as provided in S4.5, the components of a Type 2 seat belt assembly including webbing, straps, buckles, ad-

justment and attachment hardware, and retractors shall comply with the following requirements when tested by the procedure specified in S5.3(b):

(1) The structural components in the pelvic restraint shall withstand a force of not less than 2,500 pounds or 1,139 kilograms.

(2) The structural components in the upper torso restraint shall withstand a force of not less than 1,500 pounds or 680 kilograms.

(3) The structural components in the assembly that are common to pelvic and upper torso restraints shall withstand a force of not less than 3,000 pounds or 1,360 kilograms.

(4) The length of the pelvic restraint between anchorages shall not increase more than 20 inches or 50 centimeters when subjected to a force of 2,500 pounds or 1,130 kilograms.

(5) The length of the upper torso restraint between anchorages shall not increase more than 20 inches or 50 centimeters when subjected to a force of 1,500 pounds or 680 kilograms.

(6) Any webbing cut by the hardware during test shall have a breaking strength of not less than 3,500 pounds or 1,590 kilograms at a cut in webbing of the pelvic restraint, or not less than 2,800 pounds or 1,270 kilograms at a cut in webbing of the upper torso restraint.

(7) Complete fracture through any solid section of metal attachment hardware shall not occur during test.

S4.5 Load-limiter. (a) A Type 1 or Type 2 seat belt assembly that includes a load-limiter is not required to comply with the elongation requirements of S4.2(c), S4.4(a)(2), S4.4(b)(4) or S4.4(b)(5).

(b) A Type 1 or Type 2 seat belt assembly that includes a load-limiter and that does not comply with the elongation requirements of this standard may be installed in motor vehicles only in conjunction with an automatic restraint system as part of a total occupant restraint system.

(c) In addition to the marking requirements specified in S4.1(k), a Type 1 or Type 2 seat belt assembly that includes a load-limiter and that does not comply with the elongation requirements of this standard shall be perma-

nently and legibly marked or labeled with the following words:

"This seat belt assembly may only be installed in vehicles in combination with an automatic restraint system such as an air cushion or an automatic belt."

S5. Demonstration procedures.

S5.1 Webbing—(a) Width. The width of webbing from three seat belt assemblies shall be measured after conditioning for at least 24 hours in an atmosphere having relative humidity between 48 and 67 percent and a temperature of $23 \pm 2^\circ \text{C}$. or $73.4 \pm 3.6^\circ \text{F}$. The tension during measurement of width shall be not more than 5 pounds or 2 kilograms on webbing from a Type 1 seat belt assembly, and $2,200 \pm 100$ pounds or $1,000 \pm 50$ kilograms on webbing from a Type 2 seat belt assembly. The width of webbing from a Type 2 seat belt assembly may be measured during the breaking strength test described in paragraph (b) of this section.

(b) **Breaking strength.** Webbing from three seat belt assemblies shall be conditioned in accordance with paragraph (a) of this section and tested for breaking strength in a testing machine of capacity verified to have an error of not more than one percent in the range of the breaking strength of the webbing in accordance with American Society for Testing and Materials E4-79, "Standard Methods of Load Verification of Testing Machines."

The machine shall be equipped with split drum grips illustrated in Figure 1, having a diameter between 2 and 4 inches or 5 and 10 centimeters. The rate of grip separation shall be between 2 and 4 inches per minute or 5 and 10 centimeters per minute. The distance between the centers of the grips at the start of the test shall be between 4 and 10 inches or 10 and 25 centimeters. After placing the specimen in the grips, the webbing shall be stretched continuously at a uniform rate to failure. Each value shall be not less than the applicable breaking strength requirement in S4.2(b), but the median value shall be used for determining the retention of breaking strength in paragraphs (d), (e), and (f) of this section.

(c) *Elongation.* Elongation shall be measured during the breaking strength test described in paragraph (b) of this section by the following procedure: A preload between 44 and 55 pounds or 20 and 25 kilograms shall be placed on the webbing mounted in the grips of the testing machine and the needle points of an extensometer, in which the points remain parallel during test, are inserted in the center of the specimen. Initially the points shall be set at a known distance apart between 4 and 8 inches or 10 and 20 centimeters. When the force on the webbing reaches the value specified in S4.2(c), the increase in separation of the points of the extensometer shall be measured and the percent elongation shall be calculated to the nearest 0.5 percent. Each value shall be not more than the appropriate elongation requirement in S4.2(c).

(d) *Resistance to abrasion.* The webbing from three seat belt assemblies shall be tested for resistance to abrasion by rubbing over the hexagon bar prescribed in Figure 2 in the following manner: The webbing shall be mounted in the apparatus shown schematically in Figure 2. One end of the webbing (A) shall be attached to a weight (B) which has a mass of 5.2 ± 0.1 pounds or 2.35 ± 0.05 kilograms, except that a mass of 3.3 ± 1.1 pounds ($1.5 \pm .05$ kg) shall be used for webbing in pelvic and upper torso restraints of a belt assembly used in a child restraint system. The webbing shall be passed over the two new abrading edges of the hexagon bar (C) and the other end attached to an oscillating drum (D) which has a stroke of 13 inches or 33 centimeters. Suitable guides shall be used to prevent movement of the webbing along the axis of hexagonal bar C. Drum D shall be oscillated for 5,000 strokes or 2,500 cycles at a rate of 60 ± 2 strokes per minute or 30 ± 1 cycles per minute. The abraded webbing shall be conditioned as prescribed in paragraph (a) of this section and tested for breaking strength by the procedure described in paragraph (b) of this section. The median values for the breaking strengths determined on abraded and unabraded specimens shall be used to calculate the percentage of breaking strength retained.

(e) *Resistance to light.* Webbing at least 20 inches or 50 centimeters in length from three seat belt assemblies shall be suspended vertically on the inside of the specimen rack in a Type E carbon-arc light-exposure apparatus described in Standard Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials, ASTM Designation: G23-81, published by the American Society for Testing and Materials, except that the filter used for 100 percent polyester yarns shall be chemically strengthened soda-lime glass with a transmittance of less than 5 percent for wave lengths equal to or less than 305 nanometers and 90 percent or greater transmittance for wave lengths of 375 to 800 nanometers. The apparatus shall be operated without water spray at an air temperature of 60 ± 2 degrees Celsius or 140 ± 3.6 degrees Fahrenheit measured at a point 1.0 ± 0.2 inch or 25 ± 5 millimeters outside the specimen rack and midway in height. The temperature sensing element shall be shielded from radiation. The specimens shall be exposed to light from the carbon-arc for 100 hours and then conditioned as prescribed in paragraph (a) of this section. The colorfastness of the exposed and conditioned specimens shall be determined on the Geometric Gray Scale issued by the American Association of Textile Chemists and Colorists. The breaking strength of the specimens shall be determined by the procedure prescribed in paragraph (b) of this section. The median values for the breaking strengths determined on exposed and unexposed specimens shall be used to calculate the percentage of breaking strength retained.

(f) *Resistance to microorganisms.* Webbing at least 20 inches or 50 centimeters in length from three seat belt assemblies shall first be preconditioned in accordance with Appendix A (1) and (2) of American Association of Textile Chemists and Colorists Test Method 30-81, "Fungicides Evaluation on Textiles; Mildew and Rot Resistance of Textiles," and then subjected to Test I, "Soil Burial Test" of that test method. After soil-burial for a period of 2 weeks, the specimen shall

be washed in water, dried and conditioned as prescribed in paragraph (a) of this section. The breaking strengths of the specimens shall be determined by the procedure prescribed in paragraph (b) of this section. The median values for the breaking strengths determined on exposed and unexposed specimens shall be used to calculate the percentage of breaking strength retained.

NOTE: This test shall not be required on webbing made from material which is inherently resistant to micro-organisms.

(g) *Colorfastness to crocking.* Webbing from three seat belt assemblies shall be tested by the procedure specified in American Association of Textile Chemists and Colorists Standard Test Method 8-181, "Colorfastness to Crocking: AATCC Crockmeter Method."

(h) *Colorfastness to staining.* Webbing from three seat belt assemblies shall be tested by the procedure specified in American Association of Textile Chemists and Colorists (AATCC) Standard Test Method 107-1981, "Colorfastness to Water," except that the testing shall use (1) distilled water, (2) the AATCC perspiration tester, (3) a drying time of four hours, specified in section 7.4 of the AATCC procedure, and (4) section 9 of the AATCC test procedures to determine the colorfastness to staining on the AATCC Chromatic Transference Scale.

S5.2 Hardware. (a) *Corrosion resistance.* Three seat belt assemblies shall be tested in accordance with American Society for Testing and Materials B117-73, "Standard Method of Salt Spray (Fog) Testing." Any surface coating or material not intended for permanent retention on the metal parts during service life shall be removed prior to preparation of the test specimens for testing. The period of test shall be 50 hours for all attachment hardware at or near the floor, consisting of two periods of 24 hours exposure to salt spray followed by 1 hour drying and 25 hours for all other hardware, consisting of one period of 24 hours exposure to salt spray followed by 1 hour drying. In the salt spray test chamber, the parts from the three assemblies shall be oriented differently, selecting those orientations

most likely to develop corrosion on the larger areas. At the end of test, the seat belt assembly shall be washed thoroughly with water to remove the salt. After drying for at least 24 hours under standard laboratory conditions specified in S5.1(a) attachment hardware shall be examined for ferrous corrosion on significant surfaces, that is, all surfaces that can be contacted by a sphere 0.75 inch or 2 centimeters in diameter, and other hardware shall be examined for ferrous and nonferrous corrosion which may be transferred, either directly or by means of the webbing, to a person or his clothing during use of a seat belt assembly incorporating the hardware.

NOTE: When attachment and other hardware are permanently fastened, by sewing or other means, to the same piece of webbing, separate assemblies shall be used to test the two types of hardware. The test for corrosion resistance shall not be required for attachment hardware made from corrosion-resistant steel containing at least 11.5 percent chromium or for attachment hardware protected with an electrodeposited coating of nickel, or copper and nickel, as prescribed in S4.3(a). The assembly that has been used to test the corrosion resistance of the buckle shall be used to measure adjustment force, tilt-lock adjustment, and buckle latch in paragraphs (e), (f), and (g), respectively, of this section, assembly performance in S5.3 and buckle release force in paragraph (d) of this section.

(b) *Temperature resistance.* Three seat belt assemblies having plastic or nonmetallic hardware or having retractors shall be subjected to the conditions prescribed in Procedure D of American Society for Testing and Materials D756-78, "Standard Practice for Determination of Weight and Shape Changes of Plastics under Accelerated Service Conditions." The dimension and weight measurement shall be omitted. Buckles shall be unlatched and retractors shall be fully retracted during conditioning. The hardware parts after conditioning shall be used for all applicable tests in S4.3 and S4.4.

(c) *Attachment hardware.* (1) Attachment bolts used to secure the pelvic restraint of a seat belt assembly to a motor vehicle shall be tested in a manner similar to that shown in Figure 3. The load shall be applied at

an angle of 45° to the axis of the bolt through attachment hardware from the seat belt assembly, or through a special fixture which simulates the loading applied by the attachment hardware. The attachment hardware or simulated fixture shall be fastened by the bolt to the anchorage shown in Figure 3, which has a standard $\frac{1}{4}$ -20 UNF-2B or $\frac{1}{4}$ -13 UNC-2B threaded hole in a hardened steel plate at least 0.4 inch or 1 centimeter in thickness. The bolt shall be installed with two full threads exposed from the fully seated position. The appropriate force required by S4.3(c) shall be applied. A bolt from each of three seat belt assemblies shall be tested.

(2) Attachment hardware, other than bolts, designed to receive the ends of two seat belt assemblies shall be subjected to a tensile force of 6,000 pounds or 2,720 kilograms in a manner simulating use. The hardware shall be examined for fracture after the force is released. Attachment hardware from three seat belt assemblies shall be tested.

(3) Single attachment hook for connecting webbing to any eye bolt shall be tested in the following manner: The hook shall be held rigidly so that the retainer latch or keeper, with cotter pin or other locking device in place, is in a horizontal position as shown in Figure 4. A force of 150 ± 2 pounds or 68 ± 1 kilograms shall be applied vertically as near as possible to the free end of the retainer latch, and the movement of the latch by this force at the point of application shall be measured. The vertical force shall be released, and a force of 150 ± 2 pounds or 68 ± 1 kilograms shall be applied horizontally as near as possible to the free end of the retainer latch. The movement of the latch by this force at the point of load application shall be measured. Alternatively, the hook may be held in other positions, provided the forces are applied and the movements of the latch are measured at the points indicated in Figure 4. A single attachment hook from each of three seat belt assemblies shall be tested.

(d) **Buckle release.** (1) Three seatbelt assemblies shall be tested to determine compliance with the maximum buckle

release force requirements, following the assembly test in S5.3. After subjection to the force applicable for the assembly being tested, the force shall be reduced and maintained at 150 pounds on the assembly loop of a Type 1 seatbelt assembly, 75 pounds on the components of a Type 2 seatbelt assembly. The buckle release force shall be measured by applying a force on the buckle in a manner and direction typical of those which would be employed by a seatbelt occupant. For pushbutton-release buckles, the force shall be applied at least 0.125 inch from the edge of the pushbutton access opening of the buckle in a direction that produces maximum releasing effect. For lever-release buckles, the force shall be applied on the centerline of the buckle lever or finger tab in a direction that produces maximum releasing effect.

(2) The area for application of release force on pushbutton actuated buckle shall be measured to the nearest 0.05 square inch or 0.3 square centimeter. The cylinder specified in S4.3(d) shall be inserted in the actuation portion of a lever released buckle for determination of compliance with the requirement. A buckle with other release actuation shall be examined for access of release by fingers.

(3) The buckle of a Type 1 or Type 2 seatbelt assembly shall be subjected to a compressive force of 400 pounds applied anywhere on a test line that is coincident with the centerline of the belt extended through the buckle or on any line that extends over the center of the release mechanism and intersects the extended centerline of the belt at an angle of 60°. The load shall be applied by using a curved cylindrical bar having a cross section diameter of 0.75 inch and a radius of curvature of 6 inches, placed with its longitudinal centerline along the test line and its center directly above the point on the buckle to which the load will be applied. The buckle shall be latched, and a tensile force of 75 pounds shall be applied to the connected webbing during the application of the compressive force. Buckles from three seatbelt assemblies shall be

tested to determine compliance with paragraph S4.3(d)(3).

(e) *Adjustment force.* Three seat belt assemblies shall be tested for adjustment force on the webbing at the buckle, or other manual adjusting device normally used to adjust the size of the assembly. With no load on the anchor end, the webbing shall be drawn through the adjusting device at a rate of 20 ± 2 inches per minute or 50 ± 5 centimeters per minute and the maximum force shall be measured to the nearest 0.25 pound or 0.1 kilogram after the first 1 inch or 25 millimeters of webbing movement. The webbing shall be precycled 10 times prior to measurement.

(f) *Tilt-lock adjustment.* This test shall be made on buckles or other manual adjusting devices having tilt-lock adjustment normally used to adjust the size of the assembly. Three buckles or devices shall be tested. The base of the adjustment mechanism and the anchor end of the webbing shall be oriented in planes normal to each other. The webbing shall be drawn through the adjustment mechanism in a direction to increase belt length at a rate of 20 ± 2 inches per minute or 50 ± 5 centimeters per minute while the plane of the base is slowly rotated in a direction to lock the webbing. Rotation shall be stopped when the webbing locks, but the pull on the webbing shall be continued until there is a resistance of at least 20 pounds or 9 kilograms. The locking angle between the anchor end of the webbing and the base of the adjustment mechanism shall be measured to the nearest degree. The webbing shall be precycled 10 times prior to measurement.

(g) *Buckle latch.* The buckles from three seat belt assemblies shall be opened fully and closed at least 10 times. Then the buckles shall be clamped or firmly held against a flat surface so as to permit normal movement of buckle part, but with the metal mating plate (metal-to-metal buckles) or of webbing end (metal-to-webbing buckles) withdrawn from the buckle. The release mechanism shall be moved 200 times through the maximum possible travel against its stop with a force of 30 ± 3 pounds or 14 ± 1

kilograms at a rate not to exceed 30 cycles per minute. The buckle shall be examined to determine compliance with the performance requirements of S4.3(g). A metal-to-metal buckle shall be examined to determine whether partial engagement is possible by means of any technique representative of actual use. If partial engagement is possible, the maximum force of separation when in such partial engagement shall be determined.

(h) *Nonlocking retractor.* After the retractor is cycled 10 times by full extension and retraction of the webbing, the retractor and webbing shall be suspended vertically and a force of 4 pounds or 1.8 kilograms shall be applied to extend the webbing from the retractor. The force shall be reduced to 3 pounds or 1.4 kilograms when attached to a pelvic restraint, or to 1.1 pounds or 0.5 kilogram per strap or webbing that contacts the shoulder of an occupant when retractor is attached to an upper torso restraint. The residual extension of the webbing shall be measured by manual rotation of the retractor drum or by disengaging the retraction mechanism. Measurements shall be made on three retractors. The location of the retractor attached to upper torso restraint shall be examined for visibility of reel during use of seat belt assembly in a vehicle.

NOTE: This test shall not be required on a nonlocking retractor attached to the free-end of webbing which is not subjected to any tension during restraint of an occupant by the assembly.

(i) *Automatic-locking retractor.* Three retractors shall be tested in a manner to permit the retraction force to be determined exclusive of the gravitational forces on hardware or webbing being retracted. The webbing shall be fully extended from the retractor. While the webbing is being retracted, the average force or retraction within plus or minus 2 inches or 5 centimeters of 75 percent extension (25 percent retraction) shall be determined and the webbing movement between adjacent locking segments shall be measured in the same region of extension. A seat belt assembly with automatic locking retractor in upper

torso restraint shall be tested in a vehicle in a manner prescribed by the installation and usage instructions. The retraction force on the occupant of the seat belt assembly shall be determined before and after traveling for 10 minutes at a speed of 15 miles per hour or 24 kilometers per hour or more over a rough road (e.g., Belgian block road) where the occupant is subjected to displacement with respect to the vehicle in both horizontal and vertical directions. Measurements shall be made with the vehicle stopped and the occupant in the normal seated position.

(j) *Emergency-locking retractor.* A retractor shall be tested in a manner that permits the retraction force to be determined exclusive of the gravitational forces on hardware or webbing being retracted. The webbing shall be fully extended from the retractor, passing over or through any hardware or other material specified in the installation instructions. While the webbing is being retracted, the lowest force of retraction within plus or minus 2 inches of 75 percent extension shall be determined. A retractor that is sensitive to webbing withdrawal shall be subjected to an acceleration of 0.3g within a period of 50 ms. while the webbing is at 75 percent extension, to determine compliance with S4.3(j)(2). The retractor shall be subjected to an acceleration of 0.7g within a period of 50 milliseconds, while the webbing is at 75 percent extension, and the webbing movement before locking shall be measured under the following conditions: For a retractor sensitive to webbing withdrawal, the retractor shall be accelerated in the direction of webbing retraction while the retractor drum's central axis is oriented horizontally and at angles of 45°, 90°, 135°, and 180° to the horizontal plane. For a retractor sensitive to vehicle acceleration, the retractor shall be:

(1) Accelerated in the horizontal plane in two directions normal to each other, while the retractor drum's central axis is oriented at the angle at which it is installed in the vehicle; and,

(2) Accelerated in three directions normal to each other while the retractor

drum's central axis is oriented at angles of 45°, 90°, 135°, and 180° from the angle at which it is installed in the vehicle, unless the retractor locks by gravitational force when tilted in any direction to any angle greater than 45° from the angle at which it is installed in the vehicle.

(k) *Performance of retractor.* After completion of the corrosion-resistance test described in paragraph (a) of this section, the webbing shall be fully extended and allowed to dry for at least 24 hours under standard laboratory conditions specified in S5.1(a). The retractor shall be examined for ferrous and nonferrous corrosion which may be transferred, either directly or by means of the webbing, to a person or his clothing during use of a seat belt assembly incorporating the retractor, and for ferrous corrosion on significant surfaces if the retractor is part of the attachment hardware. The webbing shall be withdrawn manually and allowed to retract for 25 cycles. The retractor shall be mounted in an apparatus capable of extending the webbing fully, applying a force of 20 pounds or 9 kilograms at full extension, and allowing the webbing to retract freely and completely. The webbing shall be withdrawn from the retractor and allowed to retract repeatedly in this apparatus until 2,500 cycles are completed. The retractor and webbing shall then be subjected to the temperature resistance test prescribed in paragraph (b) of this section. The retractor shall be subjected to 2,500 additional cycles of webbing withdrawal and retraction. Then, the retractor and webbing shall be subjected to dust in a chamber similar to one illustrated in Figure 8 containing about 2 pounds or 0.9 kilogram of coarse grade dust conforming to the specification given in Society of Automotive Engineering Recommended Practice J726, "Air Cleaner Test Code" Sept. 1979. The dust shall be agitated every 20 minutes for 5 seconds by compressed air, free of oil and moisture, at a gage pressure of 80 ± 8 pounds per square inch or 5.6 ± 0.6 kilograms per square centimeter entering through an orifice 0.060 ± 0.004 inch or 1.5 ± 0.1 millimeters in diameter. The webbing shall be extended to the top of the

chamber and kept extended at all times except that the webbing shall be subjected to 10 cycles of complete retraction and extension within 1 to 2 minutes after each agitation of the dust. At the end of 5 hours, the assembly shall be removed from the chamber. The webbing shall be fully withdrawn from the retractor manually and allowed to retract completely for 25 cycles. An automatic-locking retractor or a nonlocking retractor attached to pelvic restraint shall be subjected to 5,000 additional cycles of webbing withdrawal and retraction. An emergency-locking retractor or a nonlocking retractor attached to upper torso restraint shall be subjected to 45,000 additional cycles of webbing withdrawal and retraction between 50 and 100 percent extension. The locking mechanism of an emergency locking retractor shall be actuated at least 10,000 times within 50 to 100 percent extension of webbing during the 50,000 cycles. At the end of test, compliance of the retractors with applicable requirements in S4.3 (h), (i), and (j) shall be determined. Three retractors shall be tested for performance.

S5.3 Assembly performance—(a) Type 1 seat belt assembly. Three complete seat belt assemblies, including webbing, straps, buckles, adjustment and attachment hardware, and retractors, arranged in the form of a loop as shown in Figure 5, shall be tested in the following manner:

(1) The testing machine shall conform to the requirements specified in S5.1(b). A double-roller block shall be attached to one head of the testing machine. This block shall consist of two rollers 4 inches or 10 centimeters in diameter and sufficiently long so that no part of the seat belt assembly touches parts of the block other than the rollers during test. The rollers shall be mounted on antifriction bearings and spaced 12 inches or 30 centimeters between centers, and shall have sufficient capacity so that there is no brinelling, bending or other distortion of parts which may affect the results. An anchorage bar shall be fastened to the other head of the testing machine.

(2) The attachment hardware furnished with the seat belt assembly

shall be attached to the anchorage bar. The anchor points shall be spaced so that the webbing is parallel in the two sides of the loop. The attaching bolts shall be parallel to, or at an angle of 45° or 90° to the webbing, whichever results in an angle nearest to 90° between webbing and attachment hardware except that eye bolts shall be vertical, and attaching bolts or nonthreaded anchorages of a seat belt assembly designed for use in specific models of motor vehicles shall be installed to produce the maximum angle in use indicated by the installation instructions, utilizing special fixtures if necessary to simulate installation in the motor vehicle. Rigid adapters between anchorage bar and attachment hardware shall be used if necessary to locate and orient the adjustment hardware. The adapters shall have a flat support face perpendicular to the threaded hole for the attaching bolt and adequate in area to provide full support for the base of the attachment hardware connected to the webbing. If necessary, a washer shall be used under a swivel plate or other attachment hardware to prevent the webbing from being damaged as the attaching bolt is tightened.

(3) The length of the assembly loop from attaching bolt to attaching bolt shall be adjusted to about 51 inches or 130 centimeters, or as near thereto as possible. A force of 55 pounds or 25 kilograms shall be applied to the loop to remove any slack in webbing at hardware. The force shall be removed and the heads of the testing machine shall be adjusted for an assembly loop between 48 and 50 inches or 122 and 127 centimeters in length. The length of the assembly loop shall then be adjusted by applying a force between 20 and 22 pounds or 9 and 10 kilograms to the free end of the webbing at the buckle, or by the retraction force of an automatic-locking or emergency-locking retractor. A seat belt assembly that cannot be adjusted to this length shall be adjusted as closely as possible. An automatic-locking or emergency-locking retractor when included in a seat belt assembly shall be locked at the start of the test with a tension on the webbing slightly in excess of the retractive force in order to keep the

retractor locked. The buckle shall be in a location so that it does not touch the rollers during test, but to facilitate making the buckle release test in S5.2(d) the buckle should be between the rollers or near a roller in one leg.

(4) The heads of the testing machine shall be separated at a rate between 2 and 4 inches per minute or 5 and 10 centimeters per minute until a force of $5,000 \pm 50$ pounds or $2,270 \pm 20$ kilograms is applied to the assembly loop. The extension of the loop shall be determined from measurements of head separation before and after the force is applied. The force shall be decreased to 150 ± 10 pounds or 68 ± 4 kilograms and the buckle release force measured as prescribed in S5.2(d).

(5) After the buckle is released, the webbing shall be examined for cutting by the hardware. If the yarns are partially or completely severed in a line for a distance of 10 percent or more of the webbing width, the cut webbing shall be tested for breaking strength as specified in S5.1(b) locating the cut in the free length between grips. If there is insufficient webbing on either side of the cut to make such a test for breaking strength, another seat belt assembly shall be used with the webbing repositioned in the hardware. A tensile force of $2,500 \pm 25$ pounds or $1,135 \pm 10$ kilograms shall be applied to the components or a force of $5,000 \pm 50$ pounds or $2,270 \pm 20$ kilograms shall be applied to an assembly loop. After the force is removed, the breaking strength of the cut webbing shall be determined as prescribed above.

(6) If a Type 1 seat belt assembly includes an automatic-locking retractor or an emergency-locking retractor, the webbing and retractor shall be subjected to a tensile force of $2,500 \pm 25$ pounds or $1,135 \pm 10$ kilograms with the webbing fully extended from the retractor.

(7) If a seat belt assembly has a buckle in which the tongue is capable of inverted insertion, one of the three assemblies shall be tested with the tongue inverted.

(b) *Type 2 seat belt assembly.* Components of three seat belt assemblies shall be tested in the following manner.

(1) The pelvic restraint between anchorages shall be adjusted to a length between 48 and 50 inches or 122 and 127 centimeters, or as near this length as possible if the design of the pelvic restraint does not permit its adjustment to this length. An automatic-locking or emergency-locking retractor when included in a seat belt assembly shall be locked at the start of the test with a tension on the webbing slightly in excess of the retractive force in order to keep the retractor locked. The attachment hardware shall be oriented to the webbing as specified in paragraph (a)(2) of this section and illustrated in Figure 5. A tensile force of $2,500 \pm 25$ pounds or $1,135 \pm 10$ kilograms shall be applied on the components in any convenient manner and the extension between anchorages under this force shall be measured. The force shall be reduced to 75 ± 5 pounds or 34 ± 2 kilograms and the buckle release force measured as prescribed in S5.2(d).

(2) The components of the upper torso restraint shall be subjected to a tensile force of $1,500 \pm 15$ pounds or 680 ± 5 kilograms following the procedure prescribed above for testing pelvic restraint and the extension between anchorages under this force shall be measured. If the testing apparatus permits, the pelvic and upper torso restraints may be tested simultaneously. The force shall be reduced to 75 ± 5 pounds or 34 ± 2 kilograms and the buckle release force measured as prescribed in S5.2(d).

(3) Any component of the seat belt assembly common to both pelvic and upper torso restraint shall be subjected to a tensile force of $3,000 \pm 30$ pounds or $1,360 \pm 15$ kilograms.

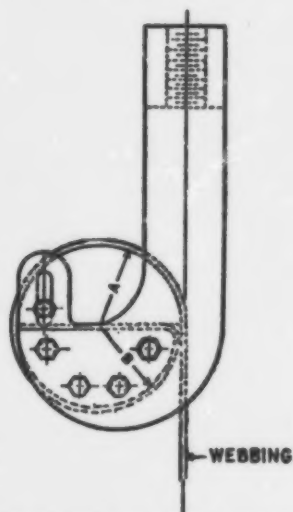
(4) After the buckle is released in tests of pelvic and upper torso restraints, the webbing shall be examined for cutting by the hardware. If the yarns are partially or completely severed in a line for a distance of 10 percent or more of the webbing width the cut webbing shall be tested for breaking strength as specified in S5.1(b) locating the cut in the free length between grips. If there is insufficient webbing on either side of the cut to make such a test for breaking strength, another seat belt assembly

shall be used with the webbing repositioned in the hardware. The force applied shall be $2,500 \pm 25$ pounds or $1,135 \pm 10$ kilograms for components of pelvic restraint, and $1,500 \pm 15$ pounds or 680 ± 5 kilograms for components of upper torso restraint. After the force is removed the breaking strength of the cut webbing shall be determined as prescribed above.

(5) If a Type 2 seat belt assembly includes an automatic-locking retractor or an emergency-locking retractor the webbing and retractor shall be subjected to a tensile force of $2,500 \pm 25$ pounds or $1,135 \pm 10$ kilograms with the webbing fully extended from the retractor, or to a tensile force of $1,500 \pm 15$ pounds or 680 ± 5 kilograms with the webbing fully extended from the retractor if the design of the assembly permits only upper torso restraint forces on the retractor.

(6) If a seat belt assembly has a buckle in which the tongue is capable of inverted insertion, one of the three assemblies shall be tested with the tongue inverted.

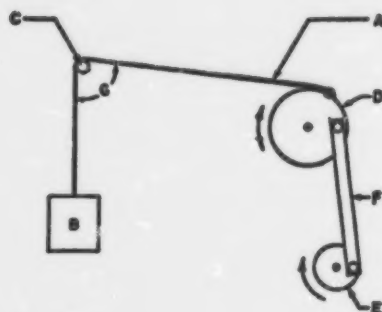
(c) *Resistance to buckle abrasion.* Seatbelt assemblies shall be tested for resistance to abrasion by each buckle or manual adjusting device normally used to adjust the size of the assembly. The webbing of the assembly to be used in this test shall be exposed for 4 hours to an atmosphere having relative humidity of 65 percent and temperature of 70° F. The webbing shall be pulled back and forth through the buckle or manual adjusting device as shown schematically in Figure 7. The anchor end of the webbing (A) shall be attached to a weight (B) of 3 pounds. The webbing shall pass through the buckle (C), and the other end (D) shall be attached to a reciprocating device so that the webbing forms an angle of 8° with the hinge stop (E). The reciprocating device shall be operated for 2,500 cycles at a rate of 18 cycles per minute with a stroke length of 8 inches. The abraded webbing shall be tested for breaking strength by the procedure described in paragraph S5.1(b).



A 1 TO 2 INCHES OR 2.5 TO 5 CENTIMETERS

B A MINUS 0.06 INCH OR 0.15 CENTIMETER

FIGURE 1



A - WEBBING

B - WEIGHT

C - HEXAGONAL ROD

STEEL - SAE 51416

ROCKWELL HARDNESS - B-97 TO B-101

SURFACE - COLD DRAWN FINISH

SIZE - 0.250 ± 0.001 INCH OR

6.35 ± 0.03 MILLIMETER

RADIUS ON EDGES - 0.020 ± 0.004 INCH OR

0.5 ± 0.1 MILLIMETER

D - DRUM DIAMETER - 16 INCHES OR
40 CENTIMETERS

E - CRANK

F - CRANK ARM

G - ANGLE BETWEEN WEBBING - 85 ± 2 DEGS.

FIGURE 2

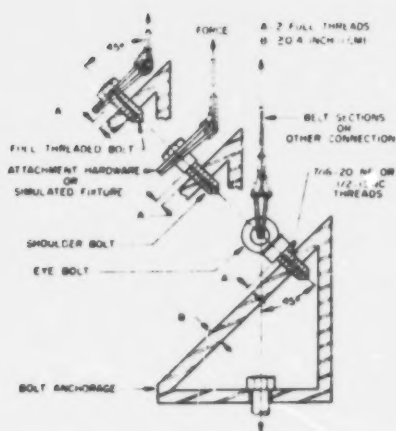
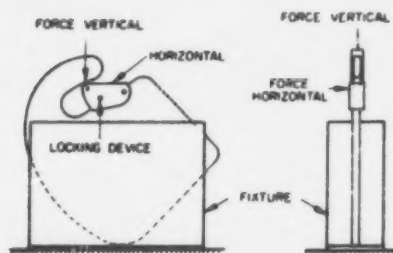


FIGURE 3

FIGURE 4
SINGLE ATTACHMENT HOOK

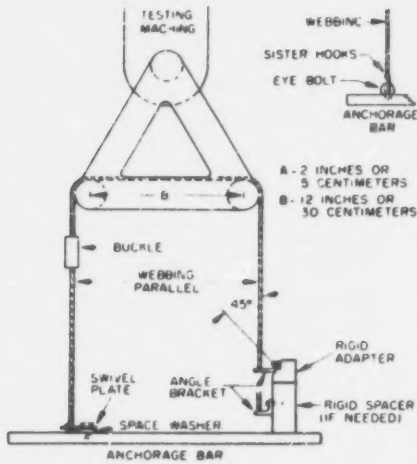


FIGURE 5

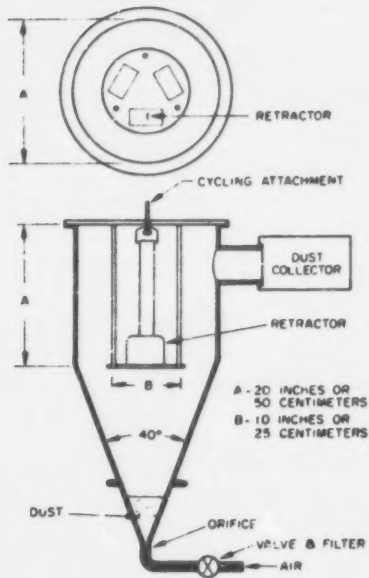


FIGURE 6

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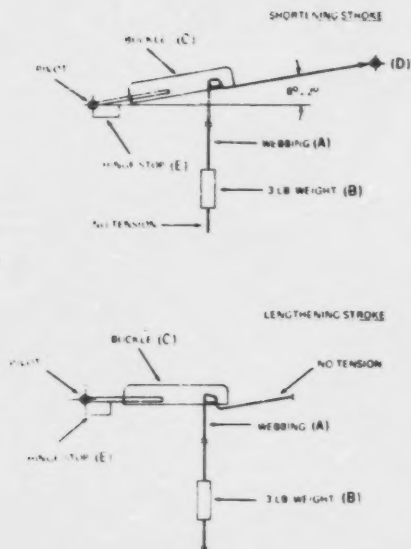


FIGURE 7

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392); delegations of authority at 49 CFR 1.50 and 501.8)

[44 FR 72139, Dec. 13, 1979, as amended at 45 FR 29048, May 1, 1980; 46 FR 2620, Jan. 12, 1981; 48 FR 30140, June 30, 1983; 49 FR 36506, Sept. 18, 1984]

§ 571.210 Standard No. 210; Seat belt assembly anchorages.

S1. Purpose and scope. This standard establishes requirements for seat belt assembly anchorages to insure their proper location for effective occupant restraint and to reduce the likelihood of their failure.

S2. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses.

S3. Definition. "Seat belt anchorage" means the provision for transferring seat belt assembly loads to the vehicle structure.

S4. Requirements.

S4.1 Type.

S4.1.1 Seat belt anchorages for a Type 2 seat belt assembly shall be installed for each forward-facing outboard designated seating position in

passenger cars other than convertibles, and for each designated seating position for which a Type 2 seat belt assembly is required by § 571.208 in vehicles other than passenger cars.

S4.1.2 Seat belt anchorages for a Type 1 or a Type 2 seat belt assembly shall be installed for each designated seating position, except a passenger seat in a bus or a designated seating position for which seat belt anchorages for a Type 2 seat belt assembly are required by S4.1.1.

S4.2 Strength.

S4.2.1 Except for side-facing seats, the anchorage for a Type 1 seat belt assembly or the pelvic portion of a Type 2 seat belt assembly shall withstand a 5,000-pound force when tested in accordance with S5.1.

S4.2.2 The anchorage for a Type 2 seat belt assembly shall withstand 3,000-pound forces when tested in accordance with S5.2.

S4.2.3 Permanent deformation or rupture of a seat belt anchorage or its surrounding area is not considered to

be a failure, if the required force is sustained for the specified time.

S4.2.4 Except for common seat belt anchorages for forward-facing and rearward-facing seats, floor-mounted seat belt anchorages for adjacent designated seating positions shall be tested by simultaneously loading the seat belt assemblies attached to those anchorages.

S4.3 Location. As used in this section, "forward" means in the direction in which the seat faces, and other directional references are to be interpreted accordingly. Anchorages for passive belt systems that meet the frontal crash protection requirements of Standard No. 208 are exempt from the location requirements of this section.

S4.3.1 *Seat belt anchorages for Type 1 seat belt assemblies and the pelvic portion of Type 2 seat belt assemblies.*

S4.3.1.1 In an installation in which the seat belt does not bear upon the seat frame, a line from the seating reference point to the nearest contact point of the belt with the hardware attaching it to the anchorage for a non-adjustable seat, or from a point 2.50 inches forward of and 0.375 inch above the seating reference point to the nearest contact point of the belt with the hardware attaching it to the anchorage for an adjustable seat in its rearmost position, shall extend forward from the anchorage at an angle with the horizontal of not less than 20° and not more than 75°.

S4.3.1.2 In an installation in which the belt bears upon the seat frame, the seat belt anchorage, if not on the seat structure, shall be aft of the rearmost belt contact point on the seat frame with the seat in the rearmost position. The line from the seating reference point to the nearest belt contact point on the seat frame shall extend forward from that contact point at an angle with the horizontal of not less than 20° and not more than 75°.

S4.3.1.3 In an installation in which the seat belt anchorage is on the seat structure, the line from the seating reference point to the nearest contact point of the belt with the hardware attaching it to the anchorage shall extend forward from that contact

point at an angle with the horizontal of not less than 20° and not more than 75°.

S4.3.1.4 Anchorages for an individual seat belt assembly shall be located at least 6.50 inches apart laterally, measured between the vertical centerlines of the bolt holes.

S4.3.2 *Seat belt anchorages for the upper torso portion of Type 2 seat belt assemblies.* With the seat in its full rearward and downward position and the seat back in its most upright position, the seat belt anchorage for the upper end of the upper torso restraint shall be located within the acceptable range shown in Figure 1, with reference to a two dimensional manikin described in SAE Standard J826 (November 1962) whose "H" point is at the seating reference point and whose torso line is at the same angle from the vertical as the seat back.

S5. Test procedures. Each vehicle shall meet the requirements of S4.2 when tested according to the following procedures. Where a range of values is specified, the vehicle shall be able to meet the requirements at all points within the range.

S5.1 *Seats with Type 1 or Type 2 seat belt anchorages.* With the seat in its rearmost position, apply a force of 5,000 pounds in the direction in which the seat faces to a pelvic body block as described in Figure 2, restrained by a Type 1 or the pelvic portion of a Type 2 seat belt assembly, as applicable, in a plane parallel to the longitudinal centerline of the vehicle, with an initial force application angle of not less than 5° nor more than 15° above the horizontal. Apply the force at the onset rate of not more than 50,000 pounds per second. Attain the 5,000-pound force in not more than 30 seconds and maintain it for 10 seconds.

S5.2 *Seats with Type 2 seat belt anchorages.* With the seat in its rearmost position, apply forces of 3,000 pounds in the direction in which the seat faces simultaneously to pelvic and upper torso body blocks as described in Figures 2 and 3, restrained by a Type 2 seat belt assembly, in a plane parallel to the longitudinal centerline of the vehicle, with an initial force application angle of not less than 5° nor more than 15° above the horizontal. Apply

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the forces at the onset rate of not more than 30,000 pounds per second. Attain the 3,000-pound forces in not more than 30 seconds and maintain them for 10 seconds.

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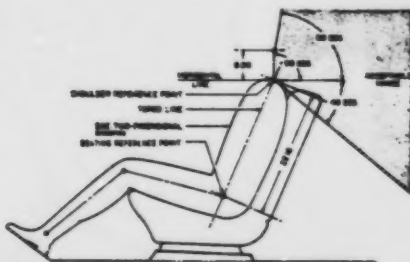


FIGURE 1--LOCATION OF ANCHORAGE FOR UPPER TORSO RESTRAINT

section states that "wheel nuts, hub caps, and wheel discs for use on passenger cars and multipurpose passenger vehicles shall not incorporate winged projections." A "wheel nut" is an exposed nut that is mounted at the center or hub of a wheel, and not the ordinary small hexagonal nut, one of several which secures a wheel to an axle, and which is normally covered by a hub cap or wheel disc.

§ 571.212 Standard No. 212: Windshield mounting.

S1. Scope. This standard establishes windshield retention requirements for motor vehicles during crashes.

S2. Purpose. The purpose of this standard is to reduce crash injuries and fatalities by providing for retention of the vehicle windshield during a crash, thereby utilizing fully the penetration-resistance and injury-avoidance properties of the windshield glazing material and preventing the ejection of occupants from the vehicle.

S3. Application. This standard applies to passenger cars, and to multipurpose passenger vehicles, trucks, and buses having a gross vehicle weight rating of 10,000 pounds or less. However, it does not apply to forward control vehicles, walk-in van-type vehicles, or to open-body type vehicles with fold-down or removable windshields.

S4. Definition. "Passive restraint system" means a system meeting the occupant crash protection requirements of S5. of Standard No. 208 by means that require no action by vehicle occupants.

S5. Requirements. When the vehicle traveling longitudinally forward at any speed up to and including 30 mph impacts a fixed collision barrier that is perpendicular to the line of travel of the vehicle, under the conditions of S6, the windshield mounting of the vehicle shall retain not less than the minimum portion of the windshield periphery specified in S5.1 and S5.2.

S5.1 Vehicles equipped with passive restraints. Vehicles equipped with passive restraint systems shall retain not less than 50 percent of the portion of the windshield periphery on each side of the vehicle longitudinal centerline.

S5.2 Vehicles not equipped with passive restraints. Vehicles not equipped with passive restraint sys-

tems shall retain not less than 75 percent of the windshield periphery.

S6. Test conditions. The requirements of S5. shall be met under the following conditions:

S6.1 The vehicle, including test devices and instrumentation, is loaded as follows:

(a) Except as specified in S6.2, a passenger car is loaded to its unloaded vehicle weight plus its cargo and luggage capacity weight, secured in the luggage area, plus a 50th-percentile test dummy as specified in Part 572 of this chapter at each front outboard designated seating position and at any other position whose protection system is required to be tested by a dummy under the provisions of Standard No. 208. Each dummy is restrained only by means that are installed for protection at its seating position.

(b) Except as specified in S6.2, a multipurpose passenger vehicle, truck, or bus is loaded to its unloaded vehicle weight, plus 300 pounds or its rated cargo and luggage capacity, whichever is less, secured to the vehicle, plus a 50th-percentile test dummy as specified in Part 572 of this chapter at each front outboard designated seating position and at any other position whose protection system is required to be tested by a dummy under the provisions of Standard No. 208. Each dummy is restrained only by means that are installed for protection at its seating position. The load is distributed so that the weight on each axle as measured at the tire-ground interface is in proportion to its GAWR. If the weight on any axle when the vehicle is loaded to its unloaded vehicle weight plus dummy weight exceeds the axle's proportional share of the test weight, the remaining weight is placed so that the weight on that axle remains the same. For the purposes of this section, unloaded vehicle weight does not include the weight of work-performing accessories. Vehicles are tested to a maximum unloaded vehicle weight of 5,500 pounds.

S6.2 The fuel tank is filled to any level from 90 to 95 percent of capacity.

S6.3 The parking brake is disengaged and the transmission is in neutral.

S6.4 Tires are inflated to the vehicle manufacturer's specifications.

S6.5 The windshield mounting material and all vehicle components in direct contact with the mounting material are at any temperature between 15° F and 110° F.

[41 FR 36494, Aug. 30, 1976, as amended at 42 FR 34289, July 5, 1977; 45 FR 22046, Apr. 3, 1980]

§ 571.213 Standard No. 213; Child restraint systems.

S1. *Scope.* This standard specifies requirements for child restraint systems used in motor vehicles and aircraft.

S2. *Purpose.* The purpose of this standard is to reduce the number of children killed or injured in motor vehicle crashes and in aircraft.

S3. *Application.* This standard applies to child restraint systems for use in motor vehicles and aircraft.

S4. Definitions.

"Car bed" means a child restraint system designed to restrain or position a child in the supine or prone position on a continuous flat surface.

"Child restraint system" means any device except Type I or Type II seat belts, designed for use in a motor vehicle or aircraft to restrain, seat, or position children who weigh 50 pounds or less.

"Contactable surface" means any child restraint system surface (other than that of a belt, belt buckle, or belt adjustment hardware) that may contact any part of the head or torso of the appropriate test dummy, specified in S7, when a child restraint system is tested in accordance with S6.1.

"Representative aircraft passenger seat" means either a Federal Aviation Administration approved production aircraft passenger seat or a simulated aircraft passenger seat conforming to Figure 6.

"Seat orientation reference line" or "SORL" means the horizontal line through Point Z as illustrated in Figure 1A.

"Torso" means the portion of the body of a seated anthropomorphic test dummy, excluding the thighs, that lies between the top of the child restraint system seating surface and the top of the shoulders of the test dummy.

S5. *Requirements for child restraint systems certified for use in motor vehicles.* Each child restraint certified for use in motor vehicles shall meet the requirements in this section when, as specified, tested in accordance with S6.1.

S5.1 Dynamic performance.

S5.1.1 *Child restraint system integrity.* When tested in accordance with S6.1, each child restraint system shall:

(a) Exhibit no complete separation of any load bearing structural element and no partial separation exposing either surfaces with a radius of less than ¼ inch or surfaces with protrusions greater than ¾ inch above the immediate adjacent surrounding contactable surface of any structural element of the system;

(b) If adjustable to different positions, remain in the same adjustment position during the testing as it was immediately before the testing; and

(c) If a front facing child restraint system, not allow the angle between the system's back support surfaces for the child and the system's seating surface to be less than 45 degrees at the completion of the test.

S5.1.2 *Injury criteria.* When tested in accordance with S6.1, each child restraint system that, in accordance with S5.5.2(f), is recommended for use by children weighing more than 20 pounds, shall—

(a) Limit the resultant acceleration at the location of the accelerometer mounted in the test dummy head as specified in Part 572 such that the expression:

$$\left[\frac{1}{(t_2 - t_1)} \int_{t_1}^{t_2} a dt \right]^{2.5} (t_2 - t_1)$$

shall not exceed 1,000, where a is the resultant acceleration expressed as a multiple of g (the acceleration of gravity), and t_1 and t_2 are any two moments during the impacts.

(b) Limit the resultant acceleration at the location of the accelerometer mounted in the test dummy upper thorax as specified in Part 572 to not more than 60 g 's, except for intervals

whose cumulative duration is not more than 3 milliseconds.

S5.1.3 Occupant excursion. When tested in accordance with S6.1 and adjusted in any position which the manufacturer has not, in accordance with S5.5.2(l), specifically warned against using in motor vehicles, each child restraint system shall meet the applicable excursion limit requirements specified in S5.1.3.1-S5.1.3.3.

S5.1.3.1 Child restraint systems other than rear-facing ones and car beds. In the case of each child restraint system other than a rear-facing child restraint system or a car bed, the test dummy's torso shall be retained within the system and no portion of the test dummy's head shall pass through the vertical transverse plane that is 32 inches forward of point z on the standard seat assembly, measured along the center SORL (as illustrated in Figure 1B), and neither knee pivot point shall pass through the vertical transverse plane that is 36 inches forward of point z on the standard seat assembly, measured along the center SORL.

S5.1.3.2 Rear-facing child restraint systems. In the case of each rear-facing child restraint system, all portions of the test dummy's torso shall be retained within the system and no portion of the target point on either side of the dummy's head shall pass through the transverse orthogonal planes whose intersection contains, the forward-most and top-most points on the child restraint system surfaces (illustrated in Figure 1C).

S5.1.3.3 Car beds. In the case of car beds, all portions of the test dummy's head and torso shall be retained within the confines of the car bed.

S5.1.4 Back support angle. When a rear-facing child restraint system is tested in accordance with S6.1, the angle between the system's back support surface for the child and the vertical shall not exceed 70 degrees.

S5.2 Force distribution.

S5.2.1 Minimum head support surface—child restraints other than car beds.

S5.2.1.1 Except as provided in S5.2.1.2, each child restraint system other than a car bed shall provide restraint against rearward movement of

the head of the child (rearward in relation to the child) by means of a continuous seat back which is an integral part of the system and which—

(a) Has a height, measured along the system seat back surface for the child in the vertical longitudinal plane passing through the longitudinal centerline of the child restraint systems from the lowest point on the system seating surface that is contacted by the buttocks of the seated dummy, as follows:

Weight ¹ (in pounds)	Height ² (in inches)
Less than 20 lb	18
20 lb or more, but not more than 40 lb	20
More than 40 lb	22

¹ When a child restraint system is recommended under S5.5(f) for use by children of the above weights.

² The height of the portion of the system seat back providing head restraint shall not be less than the above.

(b) Has a width of not less than 8 inches, measured in the horizontal plane at the height specified in paragraph (a) of this section. Except that a child restraint system with side supports extending at least 4 inches forward from the padded surface of the portion of the restraint system provided for support of the child's head may have a width of not less than 6 inches, measured in the horizontal plane at the height specified in paragraph (a) of this section.

(c) Limits the rearward rotation of the test dummy head so that the angle between the head and torso of the dummy specified in S7, when tested in accordance with S6.1 is not more than 45 degrees greater than the angle between the head and torso after the dummy has been placed in the system in accordance with S6.1.2.3 and before the system is tested in accordance with S6.1.

S5.2.1.2 A front-facing child restraint system is not required to comply with S5.2.1.1 if the target point on either side of the dummy's head is below a horizontal plane tangent to the top of the standard seat assembly when the dummy is positioned in the system and the system is installed on the assembly in accordance with S6.1.2.

S5.2.2 Torso impact protection. Each child restraint system other than a car bed shall comply with the applicable requirements of S5.2.2.1 and S5.2.2.2.

S5.2.2.1(a) The system surface provided for the support of the child's back shall be flat or concave and have a continuous surface area of not less than 85 square inches.

(b) Each system surface provided for support of the side of the child's torso shall be flat or concave and have a continuous surface of not less than 24 square inches for systems recommended for children weighing 20 pounds or more, or 48 square inches for systems recommended for children weighing less than 20 pounds.

(c) Each horizontal cross section of each system surface designed to restrain forward movement of the child's torso shall be flat or concave and each vertical longitudinal cross section shall be flat or convex with a radius of curvature of the underlying structure of not less than 2 inches.

S5.2.2.2 Each forward facing child restraint system shall have no fixed or movable surface directly forward of the dummy and intersected by a horizontal line parallel to the SORL and passing through any portion of the dummy, except for surfaces which restrain the dummy when the system is tested in accordance with S6.1.2.1.2 so that the child restraint system shall conform to the requirements of S5.1.2 and S5.1.3.1.

S5.2.3 Head impact protection.

S5.2.3.1 Each child restraint system, other than a child harness, which is recommended under S5.5.2(f) for children weighing less than 20 pounds shall comply with S5.2.3.2.

S5.2.3.2 Each system surface, except for protrusions that comply with S5.2.4, which is contactable by the dummy head when the system is tested in accordance with S6.1 shall be covered with slow recovery, energy absorbing material with the following characteristics:

(a) A 25 percent compression-deflection resistance of not less than 0.5 and not more than 10 pounds per square inch when tested in accordance with S6.3.

(b) A thickness of not less than ¼ inch for materials having a 25 percent

compression-deflection resistance of not less than 1.8 and not more than 10 pounds per square inch when tested in accordance with S6.3. Materials having a 25 percent compression-deflection resistance of less than 1.8 pounds per square inch shall have a thickness of not less than ¼ inch.

S5.2.4 Protrusion limitation. Any portion of a rigid structural component within or underlying a contactable surface, or any portion of a child restraint system surface that is subject to the requirements of S5.2.3 shall, with any padding or other flexible overlay material removed, have a height above any immediately adjacent restraint system surface of not more than ¼ inch and no exposed edge with a radius of less than ¼ inch.

S5.3 Installation.

S5.3.1 Each child restraint system shall have no means designed for attaching the system to a vehicle seat cushion or vehicle seat back and no component (except belts) that is designed to be inserted between the vehicle seat cushion and vehicle seat back.

S5.3.2 When installed on a vehicle seat, each child restraint system, other than child harnesses, shall be capable of being restrained against forward movement solely by means of a Type I seat belt assembly (defined in § 571.209) that meets Standard No. 208 (§ 571.208), or by means of a Type I seat belt assembly plus one additional anchorage strap that is supplied with the system and conforms to S5.4.

S5.3.3 Car beds. Each car bed shall be designed to be installed on a vehicle seat so that the car bed's longitudinal axis is perpendicular to a vertical longitudinal plane through the longitudinal axis of the vehicle.

S5.4 Belts, belt buckles, and belt webbing.

S5.4.1 Performance requirements. The webbing of belts provided with a child restraint system and used to attach the system to the vehicle or to restrain the child within the system shall—

(a) After being subjected to abrasion as specified in S5.1(d) or S5.3(c) of FMVSS 209 (§ 571.209), have a breaking strength of not less than 75 percent of the strength of the unabraded

webbing when tested in accordance with S5.1(b) of FMVSS 209.

(b) Meet the requirements of S4.2 (e) through (h) of FMVSS No. 209 (§ 571.209); and

(c) If contactable by the test dummy torso when the system is tested in accordance with S6.1, have a width of not less than 1½ inches when measured in accordance with S5.4.1.1.

S5.4.1.1 Width test procedure. Condition the webbing for 24 hours in an atmosphere of any relative humidity between 48 and 67 percent, and any ambient temperature between 70° and 77° F. Measure belt webbing width under a tension of 5 pounds applied lengthwise.

S5.4.2 Belt buckles and belt adjustment hardware. Each belt buckle and item of belt adjustment hardware used in a child restraint system shall conform to the requirements of S4.3(a) and S4.3(b) of FMVSS No. 209 (S571.209).

S5.4.3 Belt Restraint.

S5.4.3.1 General. Each belt that is part of a child restraint system and that is designed to restrain a child using the system shall be adjustable to snugly fit any child whose height and weight are within the ranges recommended in accordance with S5.5.2(f) and who is positioned in the system in accordance with the instructions required by S5.6.

S5.4.3.2 Direct restraint. Each belt that is part of a child restraint system and that is designed to restrain a child using the system and to attach the system to the vehicle shall, when tested in accordance with S6.1, impose no loads on the child that result from the mass of the system or the mass of the seat back of the standard seat assembly specified in S7.3.

S5.4.3.3 Seating systems. Except for child restraint systems subject to S5.4.3.4, each child restraint system that is designed for use by a child in a seated position and that has belts designed to restrain the child, shall, with the test dummy specified in S7, positioned in the system in accordance with S6.1.2.3 provide:

(a) Upper torso restraint in the form of:

(i) Belts passing over each shoulder of the child, or

(ii) A fixed or movable surface that complies with S5.2.2.1(c), and

(b) Lower torso restraint in the form of:

(i) A lap belt assembly making an angle between 45° and 90° with the child restraint seating surface at the lap belt attachment points, or

(ii) A fixed or movable surface that complies with S5.2.2.1(c), and

(c) In the case of each seating system recommended for children over 20 pounds, crotch restraint in the form of:

(i) A crotch belt connectable to the lap belt or other device used to restrain the lower torso, or

(ii) A fixed or movable surface that complies with S5.2.2.1(c).

S5.4.3.4 Harnesses. Each child harness shall:

(a) Provide upper torso restraint, including belts passing over each shoulder of the child;

(b) Provide lower torso restraint by means of lap and crotch belt; and

(c) Prevent a child of any height for which the restraint is recommended for use pursuant to S5.5.2(f) from standing upright on the vehicle seat when the child is placed in the device in accordance with the instructions required by S5.6.

S5.4.3.5 Buckle Release. Any buckle in a child restraint system belt assembly designed to restrain a child using the system shall:

(a) When tested in accordance with S6.2.1 prior to the dynamic test of S6.1, not release when a force of less than 9 pounds is applied and shall release when a force of not more than 14 pounds is applied;

(b) After the dynamic test of S6.1, when tested in accordance with S6.2.3, release when a force of not more than 16 pounds is applied;

(c) Meet the requirements of S4.3(d)(2) of FMVSS No. 209 (§ 571.209), except that the minimum surface area for child restraint buckles designed for push button application shall be 0.6 square inch;

(d) Meet the requirements of S4.3(g) of FMVSS No. 209 (§ 571.209) when tested in accordance with S5.2(g) of FMVSS No. 209; and

(e) Not release during the testing specified in S6.1.

S5.5 Labeling.

S5.5.1 Each child restraint system shall be permanently labeled with the information specified in S5.5.2 (a) through (l).

S5.5.2 The information specified in paragraphs (a) through (l) of this section shall be stated in the English language and lettered in letters and numbers that are not smaller than 10 point type and are on a contrasting background.

(a) The model name or number of the system.

(b) The manufacturer's name. A distributor's name may be used instead if the distributor assumes responsibility for all duties and liabilities imposed on the manufacturer with respect to the system by the National Traffic and Motor Vehicle Safety Act, as amended.

(c) The statement: "Manufactured in —," inserting the month and year of manufacture.

(d) The place of manufacture (city and State, or foreign country). However, if the manufacturer uses the name of the distributor, then it shall state the location (city and State, or foreign country) of the principal offices of the distributor.

(e) The statement: "This child restraint system conforms to all applicable Federal motor vehicle safety standards."

(f) One of the following statements, inserting the manufacturer's recommendations for the maximum weight and height of children who can safely occupy the system:

(i) This infant restraint is designed for use by children who weigh — pounds or less and whose height is — inches or less; or

(ii) This child restraint is designed for use only by children who weigh between — and — pounds and whose height is — inches or less and who are capable of sitting upright alone; or

(iii) This child restraint is designed for use only by children who weigh between — and — pounds and are between — and — inches in height.

(g) The following statement, inserting the location of the manufacturer's installation instruction booklet or sheet on the restraint:

WARNING: FAILURE TO FOLLOW EACH OF THE FOLLOWING INSTRUCTIONS CAN RESULT IN YOUR CHILD STRIKING THE VEHICLE'S INTERIOR DURING A SUDDEN STOP OR CRASH. SECURE THIS CHILD RESTRAINT WITH A VEHICLE BELT AS SPECIFIED IN THE MANUFACTURER'S INSTRUCTIONS LOCATED—.

(h) In the case of each child restraint system that has belts designed to restrain children using them:

SNUGLY ADJUST THE BELTS PROVIDED WITH THIS CHILD RESTRAINT AROUND YOUR CHILD.

(i) In the case of each child restraint system which is not intended for use in motor vehicles at certain adjustment positions, the following statement, inserting the manufacturer's adjustment restrictions.

DO NOT USE THE—ADJUSTMENT POSITION(S) OF THIS CHILD RESTRAINT IN A MOTOR VEHICLE.

(j) In the case of each child restraint system equipped with an anchorage strap, the statement:

SECURE THE TOP ANCHORAGE STRAP PROVIDED WITH THIS CHILD RESTRAINT AS SPECIFIED IN THE MANUFACTURER'S INSTRUCTIONS.

(k) In the case of each child restraint system which can be used in a rear-facing position, one of the following statements:

(i) **PLACE THIS CHILD RESTRAINT IN REAR-FACING POSITION WHEN USING IT WITH AN INFANT; or**

(ii) **PLACE THIS INFANT RESTRAINT IN A REAR-FACING POSITION WHEN USING IT IN THE VEHICLE.**

(l) An installation diagram showing the child restraint system installed in the right front outboard seating position equipped with a continuous-loop lap/shoulder belt and in the center rear seating position as specified in the manufacturer's instructions.

(m) Child restraints that are certified as complying with the provisions of section S8 shall be labeled with the statement "THIS RESTRAINT IS CERTIFIED FOR USE IN MOTOR VEHICLES AND AIRCRAFT". This statement shall be in red lettering.

and shall be placed after the certification statement required by paragraph (e) of this section.

S5.5.3 The information specified in S5.5.2 (g) through (k) shall be located on the child restraint system so that it is visible when the system is installed as specified in S5.6.

S5.6 Installation instructions. Each child restraint system shall be accompanied by printed instructions in the English language that provide a step-by-step procedure, including diagrams, for installing the system in motor vehicles, securing the system in the vehicles, positioning a child in the system, and adjusting the system to fit the child.

S5.6.1 The instructions shall state that the rear center seating position is the safest seating position in most vehicles for installing a child restraint system.

S5.6.2 The instructions shall specify in general terms the types of vehicles, seating positions, and vehicle lap belts with which the system can or cannot be used.

S5.6.3 The instructions shall explain the primary consequences of noting following the warnings required to be labeled on the child restraint system in accordance with S5.5.2 (g) through (k).

S5.6.4 The instructions for each car bed shall explain that the car bed should position in such a way that the child's head is near the center of the vehicle.

S5.6.5 The instructions shall state that child restraint systems should be securely belted to the vehicle, even when they are not occupied, since in a crash an unsecured child restraint system may injure other occupants.

S5.6.6 Each child restraint system shall have a location on the restraint for storing the manufacturer's instructions.

S5.7 Flammability. Each material used in a child restraint system shall conform to the requirements of S4 of FMVSS No. 302 (§ 571.302).

S6 Test conditions and procedures.

S6.1 Dynamic systems test.

S6.1.1 Test conditions.

S6.1.1.1 The test device is the standard seat assembly specified in S7.3. It is mounted on a dynamic test

platform so that the center SORL of the seat is parallel to the direction of the test platform travel and so that movement between the base of the assembly and the platform is prevented. The platform is instrumented with an accelerometer and data processing system having a frequency response of 60 Hz channel class as specified in Society of Automotive Engineers Recommended Practice J211a "Instrumentation for Impact Tests." The accelerometer sensitive axis is parallel to the direction of the test platform travel.

S6.1.1.2 The tests are frontal barrier impact simulations and for—

(a) Test configuration I specified in S6.1.2.1.1, are at a velocity change of 30 mph with the acceleration of the test platform entirely within the curve shown in figure 2.

(b) Test configuration II specified in S6.1.2.1.2, are at a velocity change of 20 mph with the acceleration of the test platform entirely within the curve shown in figure 3.

S6.1.1.3 Type I seat belt assemblies meeting the requirements of Standard No. 209 (§ 571.209) and having webbing with a width of not more than 2 inches are attached, without the use of retractors or reels of any kind, to the seat belt anchorage points (illustrated in Figure 1B) provided on the standard seat assembly.

S6.1.1.4 Performance tests under S6.1 are conducted at any ambient temperature from 66° to 78° F and at any relative humidity from 10 percent to 70 percent.

S6.1.2 Dynamic test procedure.

S6.1.2.1 Test configuration.

S6.1.2.1.1 Test configuration I. In the case of each child restraint system, install a new child restraint system at the center seat position of the standard seat assembly in accordance with the manufacturer's instructions provided in accordance with S5.6 with the system.

S6.1.2.1.2 Test configuration II. In the case of each child restraint system, other than a child harness, which is equipped with an anchorage belt or a fixed or movable surface described in S5.2.2.2, install a new child restraint system at the center seat position of the standard seat assembly using only the standard seat lap belt

to secure the system to the standard seat.

S6.1.2.2 Tighten all belts used to attach the child restraint system to the standard seat assembly to a tension of not less than 12 pounds and not more than 15 pounds, as measured by a load cell used on the webbing portion of the belt.

S6.1.2.3 Place in the child restraint any dummy specified in S7. for testing systems for use by children of the heights and weights for which the system is recommended in accordance with S5.6.

S6.1.2.3.1 When placing the 3-year-old test dummy in child restraint systems other than car beds, position the test dummy according to the instructions for child positioning provided by the manufacturer with the system in accordance with S5.6 while conforming to the following:

(a) Place the test dummy in the seated position within the system with the midsagittal plane of the test dummy head coincident with the center SORL of the standard seating assembly, holding the torso upright until it contacts the system's design seating surface.

(b) Extend the arms of the test dummy as far as possible in the upward vertical direction. Extend the legs of the dummy as far as possible in the forward horizontal direction, with the dummy feet perpendicular to the centerline of the lower legs.

(c) Using a flat square surface with an area of 4 square inches, apply a force of 40 pounds, perpendicular to the plane of the back of the standard seat assembly, first against the dummy crotch and then at the dummy thorax in the midsagittal plane of the dummy. For a child's restraint system with a fixed or movable surface described in S5.2.2.2 which is being tested under the conditions of test configuration II, do not attach any of the child restraint belts unless they are an integral part of the fixed or movable surface. For all other child restraint systems and for a child restraint system with a fixed or movable surface which is being tested under the conditions of test configuration I, attach all appropriate child restraint belts and tighten them as specified in

S6.1.2.4. Attach all appropriate vehicle belts and tighten them as specified in S6.1.2.2. Position each movable surface in accordance with the manufacturer's instructions provided in accordance with S5.6.

(d) After the steps specified in paragraph (c) of this section, rotate each dummy limb downwards in the plane parallel to its midsagittal plane until the limb contacts a surface of the child restraints system or the standard seat. Position the limbs, if necessary, so that limb placement does not inhibit torso or head movement in tests conducted under S6.

S6.1.2.3.2 When placing the 6-month-old dummy in child restraint systems other than car beds, position the test dummy according to the instructions for child positioning provided with the system by the manufacturer in accordance with S5.6 while conforming to the following:

(a) With the dummy in the supine position on a horizontal surface, and while preventing movement of the dummy torso by placing a hand on the center of the torso, rotate the dummy legs upward by lifting the feet until the legs contact the upper torso and the feet touch the head, and then slowly release the legs but do not return them to the flat surface.

(b) Place the dummy in the child restraint system so that the back of the dummy torso contacts the back support surface of the system. For a child restraint system with a fixed or movable surface described in S5.2.2.2 which is being tested under the conditions of test configuration II, do not attach any of the child restraint belts unless they are an integral part of the fixed or movable surface. For all other child restraint systems and for a child restraint system with a fixed or movable surface which is being tested under the conditions of test configuration I, attach all appropriate child restraint belts and tighten them as specified in S6.1.2.4. Attach all appropriate vehicle belts and tighten them as specified in S6.1.2.2. Position each movable surface in accordance with the manufacturer's instructions provided in accordance with S5.6. If the dummy's head does not remain in the proper position, it shall be taped against the front of the

seat back surface of the system by means of a single thickness of ¼-inch-wide paper masking tape placed across the center of the dummy face.

(c) Position the dummy arms vertically upwards and then rotate each arm downward toward the dummy's lower body until it contacts a surface of the child restraint system or the standard seat assembly, ensuring that no arm is restrained from movement in other than the downward direction, by any part of the system or the belts used to anchor the system to the standard seat assembly.

S6.1.2.3.3 When placing the 6-month-old dummy or 3-year-old dummy in a car bed, place the dummy in the car bed in the supine position with its midsagittal plane perpendicular to the center SORL of the standard seat assembly and position the dummy within the car bed in accordance with instructions for child positioning provided with the car bed by its manufacturer in accordance with S5.6.

S6.1.2.4 If provided, shoulder and pelvic belts that directly restrain the dummy shall be adjusted as follows:

Tighten the belts until a 2-pound force applied (as illustrated in figure 5) to the webbing at the top of each dummy shoulder and to the pelvic webbing two inches on either side of the torso midsagittal plane pulls the webbing ¼ inch from the dummy.

S6.1.2.5 Accelerate the test platform to simulate frontal impact in accordance with S6.1.1.2(a) or S6.1.1.2(b), as appropriate.

S6.1.2.6 Measure dummy excursion and determine conformance to the requirements specified in S5.1 as appropriate.

S6.2 Buckle release test procedure. The belt assembly buckles used in any child restraint system shall be tested in accordance with S6.2.1 through S6.2.4 inclusive.

S6.2.1. Before conducting the testing specified in S6.1, place the loaded buckle on a hard, flat, horizontal surface. Each belt end of the buckle shall be pre-loaded in the following manner. The anchor end of the buckle shall be loaded with a two pound force in the direction away from the buckle. In the case of buckles designed to secure a

single latch plate, the belt latch plate end of the buckle shall be pre-loaded with a two pound force in the direction away from the buckle. In the case of buckles designed to secure two or more latch plates, the belt latch plate ends of the buckle shall be loaded equally so that the total load is two pounds, in the direction away from the buckle. For pushbutton-release buckles, the release force shall be applied by a conical surface (cone angle not exceeding 90 degrees). For pushbutton-release mechanisms with a fixed edge (referred to in Figure 7 as "hinged button"), the release force shall be applied at the centerline of the button, 0.125 inches away from the movable edge directly opposite the fixed edge, and in the direction that produces maximum releasing effect. For pushbutton-release mechanisms with no fixed edge (referred to in Figure 7 as "floating button"), the release force shall be applied at the center of the release mechanism in the direction that produces the maximum releasing effect. For all other buckle release mechanisms, the force shall be applied on the centerline of the buckle lever or finger tab in the direction that produces the maximum releasing effect. Measure the force required to release the buckle. Figure 7 illustrates the loading for the different buckles and the point where the release force should be applied, and Figure 8 illustrates the conical surface used to apply the release force to pushbutton-release buckles.

S6.2.2 After completion of the testing specified in S6.1, and before the buckle is unlatched, tie a self-adjusting sling to each wrist and ankle of the test dummy in the manner illustrated in Figure 4.

S6.2.3 Pull the sling horizontally in the manner illustrated in figure 4 and parallel to the center SORL of the seat assembly and apply a force of 29 pounds in the case of a system tested with a 6 month-old dummy and 45 pounds in the case of a system tested with a 3 year-old dummy.

S6.2.4 While applying the force specified in S6.2.3, and using the device shown in Figure 8 for pushbutton-release buckles, apply the release force in the manner and location spec-

ified in S6.2.1, for that type of buckle. Measure the force required to release the buckle.

S6.2.5 Measure the force required to release the buckle.

S6.3 *Head impact protection—energy absorbing material test procedure.*

S6.3.1 Prepare and test specimens of the energy absorbing material used to comply with S5.2.3 in accordance with the applicable 25 percent compression-deflection test described in the American Society for Testing and Materials (ASTM) Standard D1056-73, "Standard Specification for Flexible Cellular Materials—Sponge or Expanded Rubber," or D1564-71 "Standard Method of Testing Flexible Cellular Materials—Slab Urethane Foam" or D1565-76 "Standard Specification for Flexible Cellular Materials—Vinyl Chloride Polymer and Copolymer open-cell foams."

S7 *Test dummies.*

S7.1 *Six-month-old dummy.* An unclothed "Six-month-old Size Manikin" conforming to Subpart D of Part 572 of this chapter is used for testing a child restraint system that is recommended by its manufacturer in accordance with S5.6 for use by children in a weight range that includes children weighing not more than 20 pounds.

S7.2 *Three-year-old dummy.* A three-year-old dummy conforming to Subpart C of Part 572 of this chapter is used for testing a child restraint that is recommended by its manufacturer in accordance with S5.6 for use by children in a weight range that includes children weighing more than 20 pounds.

S7.2.1 Before being used in testing under this standard, the dummy is conditioned at any ambient temperature from 66° F to 78° F and at any relative humidity from 10 percent to 70 percent for at least 4 hours.

S7.2.2 When used in testing under this standard, the dummy is clothed in thermal knit waffle-weave polyester and cotton underwear, a size 4 long-sleeved shirt weighing 0.2 pounds, a size 4 pair of long pants weighing 0.2 pounds and cut off just far enough above the knee to allow the knee target to be visible, and size 7M sneakers with rubber toe caps, uppers of

dacron and cotton or nylon and a total weight of 1 pound. Clothing other than the shoes is machine-washed in 160° F to 180° F water and machine-dried at 120° F to 140° F for 30 minutes.

S7.3 *Standard seat assemblies.* The standard seat assemblies used in testing under this standard are:

(a) For testing for motor vehicle use, a simulated vehicle bench seat, with three seating positions, which is described in Drawing Package SAS-100-1000 (consisting of drawings and a bill of materials); and

(b) For testing for aircraft use, a representative aircraft passenger seat.

S8 *Requirements, test conditions, and procedures for child restraint systems manufactured for use in aircraft.*

Each child restraint system manufactured for use in both motor vehicles and aircraft must comply with all of the applicable requirements specified in Section S5 and with the additional requirements specified in S8.1 and S8.2.

S8.1 *Installation instructions.* Each child restraint system manufactured for use in aircraft shall be accompanied by printed instructions in the English language that provide a step-by-step procedure, including diagrams, for installing the system in aircraft passenger seats, securing the system to the seat, positioning a child in the system when it is installed in aircraft, and adjusting the system to fit the child. In the case of each child restraint which is not intended for use in aircraft at certain adjustment positions, the following statement, with the manufacturer's restrictions inserted, shall be included in the instructions.

DO NOT USE THE—ADJUSTMENT POSITION(S) OF THIS CHILD RESTRAINT IN AIRCRAFT.

S8.2 *Inversion test.* When tested in accordance with S8.2.1 through S8.2.5 and adjusted in any position which the manufacturer has not, in accordance with S8.1, specifically warned against using in aircraft, each child restraint system manufactured for use in aircraft shall meet the requirements of S8.2.1 through S8.2.6. The manufacturer may, at its option, use any seat which is a representative air-

craft passenger seat within the meaning of S4.

S8.2.1 A representative aircraft passenger seat shall be positioned and adjusted so that its horizontal and vertical orientation and its seat back angle are the same as shown in Figure 6.

S8.2.2 The child restraint system shall be attached to the representative aircraft passenger seat using, at the manufacturer's option, any Federal Aviation Administration approved aircraft safety belt, according to the restraint manufacturer's instructions for attaching the restraint to an aircraft seat. No supplementary anchorage belts or tether straps may be attached; however, Federal Aviation Administration approved safety belt extensions may be used.

S8.2.3 In accordance with S6.1.2.3.1 through S6.1.2.3.3, place in the child restraint any dummy specified in S7 for testing systems for use by children of the heights and weights for which the system is recommended in accordance with S5.5 and S8.1.

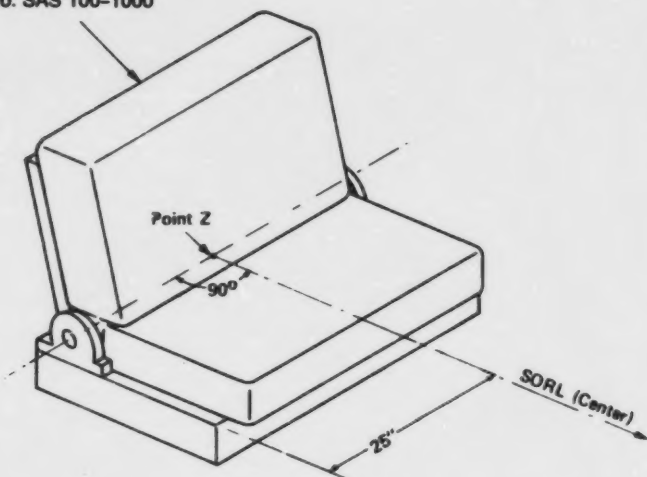
S8.2.4 If provided, shoulder and pelvic belts that directly restrain the dummy shall be adjusted in accordance with S6.1.2.4.

S8.2.5 The combination of representative aircraft passenger seat, child restraint, and test dummy shall be rotated forward around a horizontal axis which is contained in the median transverse vertical plane of the seating surface portion of the aircraft seat and is located one inch below the bottom of the seat frame, at a speed of 35 to 45 degrees per second, to an angle of 180 degrees. The rotation shall be stopped when it reaches that

angle and the seat shall be held in this position for three seconds. The child restraint shall not fall out of the aircraft safety belt nor shall the test dummy fall out of the child restraint at any time during the rotation or the three second period. The specified rate of rotation shall be attained in not less than one half second and not more than one second, and the rotating combination shall be brought to a stop in not less than one half second and not more than one second.

S8.2.6 Repeat the procedures set forth in S8.2.1 through S8.2.4. The combination of the representative aircraft passenger seat, child restraint, and test dummy shall be rotated sideways around a horizontal axis which is contained in the median longitudinal vertical plane of the seating surface portion of the aircraft seat and is located one inch below the bottom of the seat frame, at a speed of 35 to 45 degrees per second, to an angle of 180 degrees. The rotation shall be stopped when it reaches that angle and the seat shall be held in this position for three seconds. The child restraint shall not fall out of the aircraft safety belt, nor shall the test dummy fall out of the child restraint at any time during the rotation or the three second period. The specified rate of rotation shall be attained in not less than one half second and not more than one second, and the rotating combination shall be brought to a stop in not less than one half second and not more than one second.

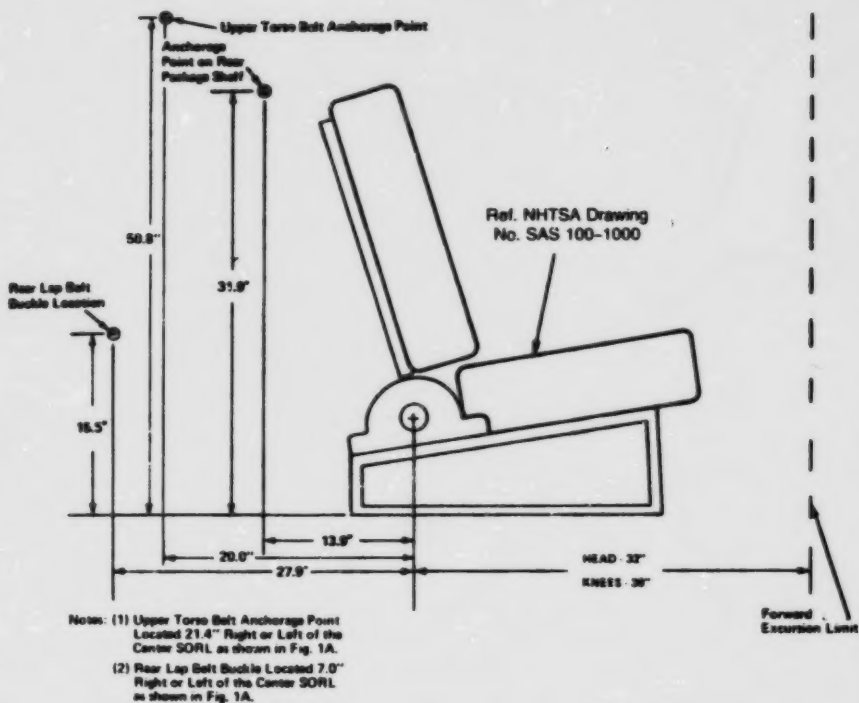
Ref. NHTSA Drawing
No. SAS 100-1000



SORL-SEAT ORIENTATION REFERENCE LINE (HORIZONTAL)

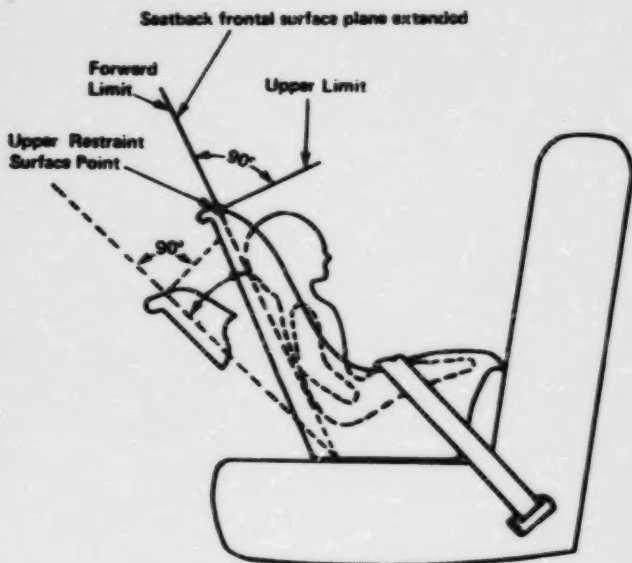
SORL LOCATION ON THE STANDARD SEAT

FIGURE 1A



LOCATIONS OF ADDITIONAL BELT ANCHORAGE POINTS AND FORWARD EXCURSION LIMIT

FIGURE 1B



Note: The limits illustrated move during dynamic testing

REAR FACING CHILD RESTRAINT
FORWARD AND UPPER HEAD EXCURSION LIMITS

FIGURE 1C

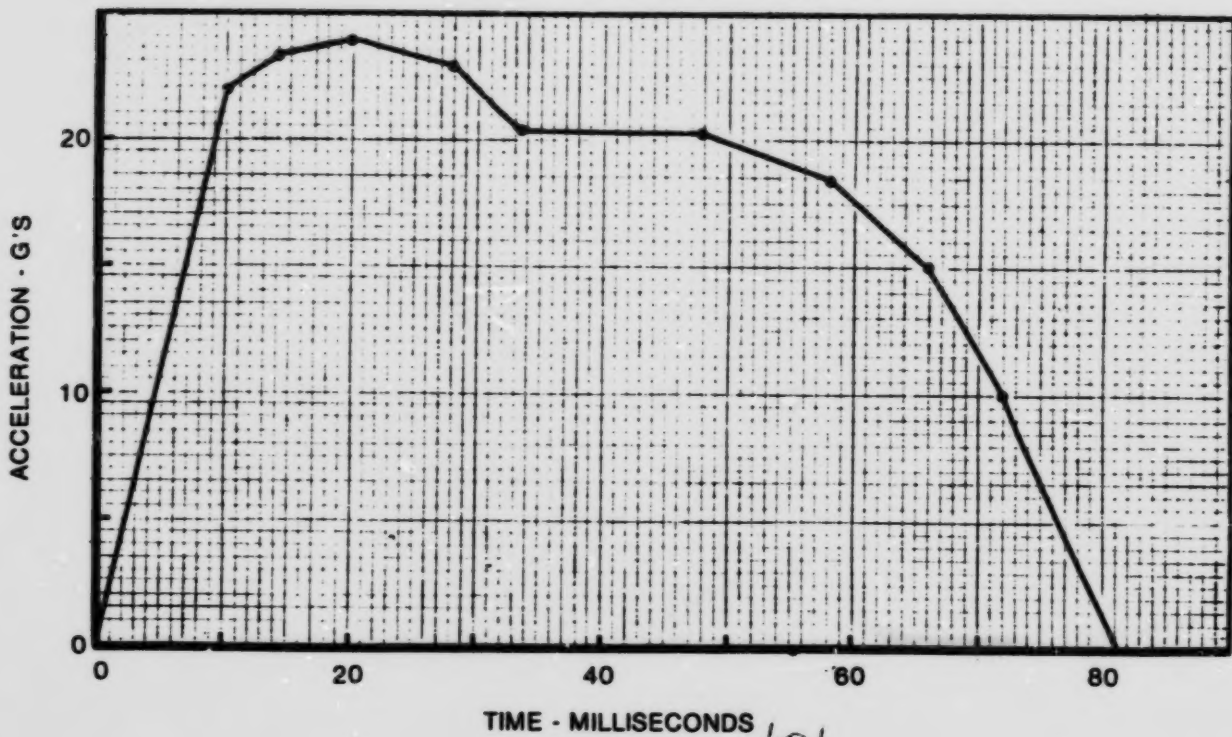
ACCELERATION FUNCTION FOR $\Delta V = 30$ MPH.

FIGURE 2

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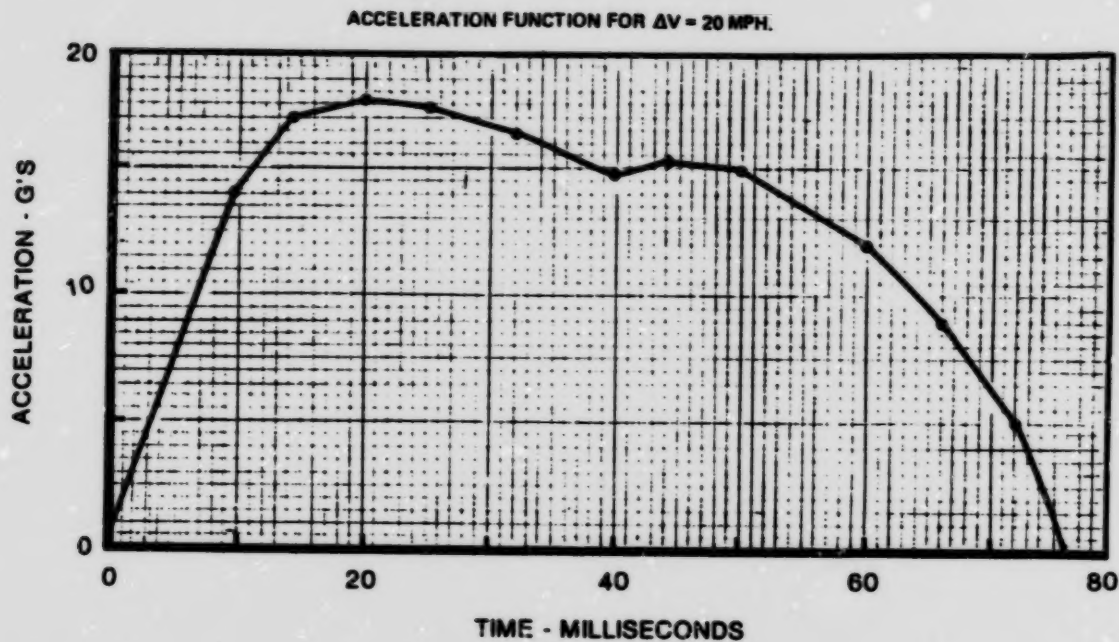
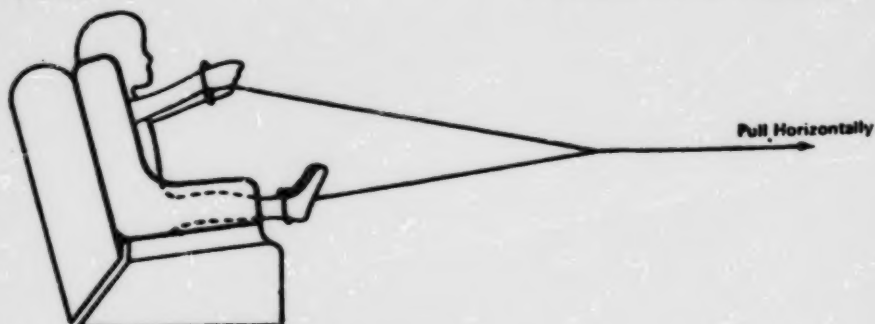


FIGURE 3

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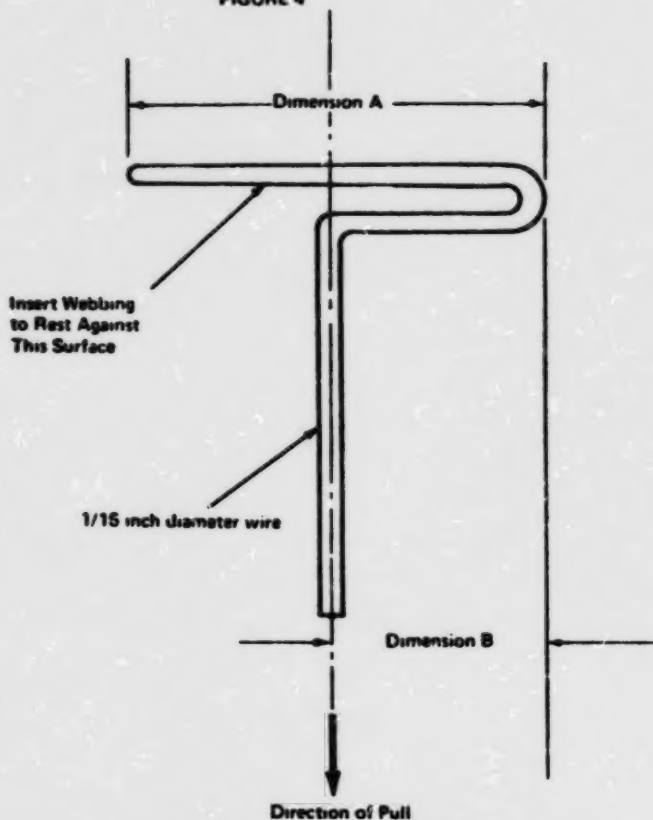
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BUCKLE RELEASE TEST

FIGURE 4

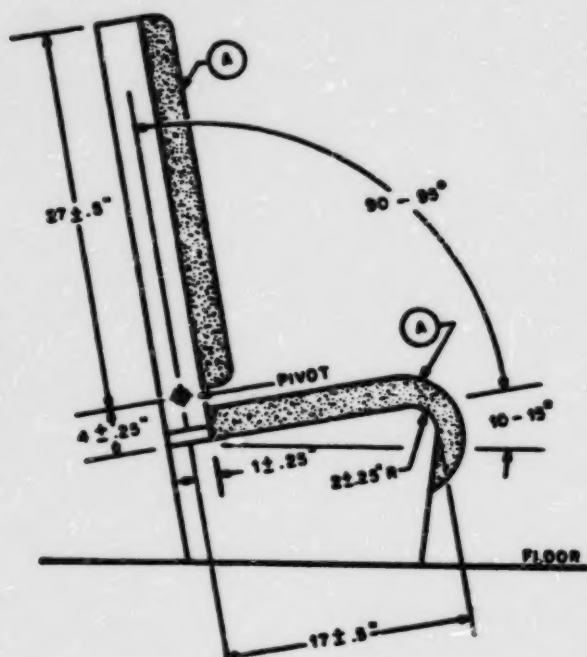


Dimension A - Width of Webbing Plus 1/8 inch

Dimension B - 1/2 of Dimension A

WEBBING TENSION PULL DEVICE

FIGURE 5



"A" represents a 2- to 3-inch thick polyurethane foam pad, 1.5-2.0 pounds per cubic foot density, over 0.020-inch-thick aluminum pan, and covered by 12- to 14-ounce marine canvas. The sheet aluminum pan is 20 inches wide and supported on each side by a rigid structure. The seat back is a rectangular frame covered with the aluminum sheet and weighing between 14 and 15 pounds, with a center of mass 13 to 16 inches above the seat pivot axis. The mass moment of inertia of the seat back about the seat pivot axis is between 195 and 220 ounce-inch-second². The seat back is free to fold forward about the pivot, but a stop prevents rearward motion. The passenger safety belt anchor points are spaced 21 to 22 inches apart and are located in line with the seat pivot axis.

FIGURE 6: SIMULATED AIRCRAFT PASSENGER SEAT

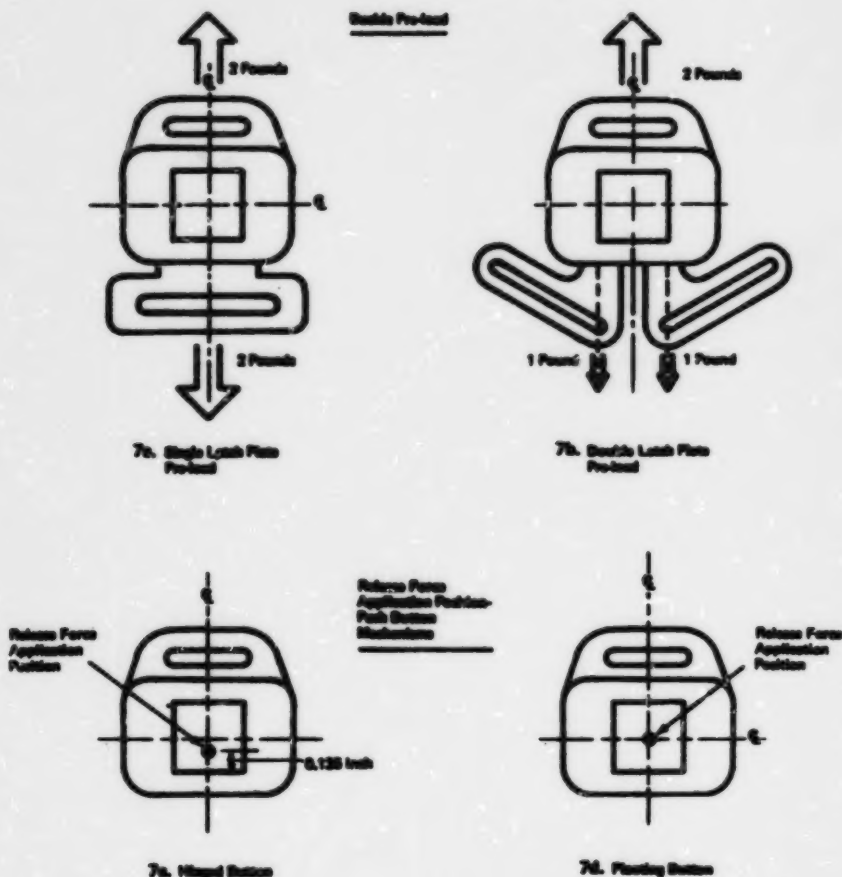


Figure 7. Pre-impact Buckle Release Force Test Set-up

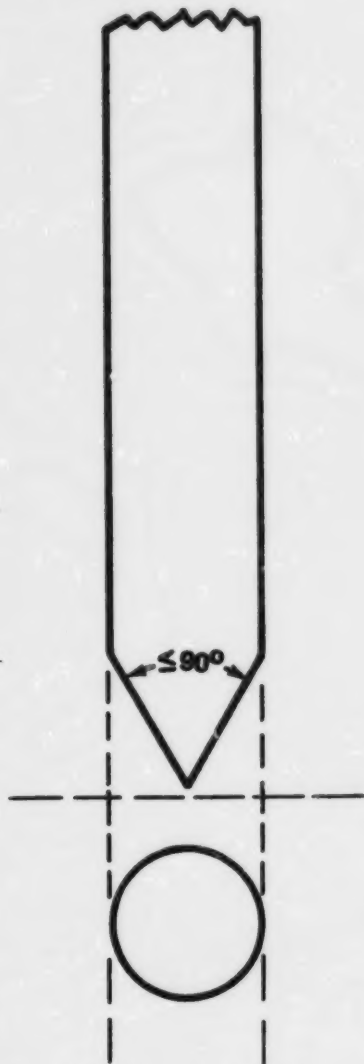


Figure 8. Release Force Application Device--
Push Button Release Buckles

(Secs. 103, 112, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1401, 1407); delegation of authority at 49 CFR 1.50 and 501.8)

[44 FR 72147, Dec. 13, 1979, as amended at 45 FR 29047, May 1, 1980; 45 FR 67096, Oct. 9, 1980; 45 FR 82265, Dec. 15, 1980; 47 FR 30077, July 12, 1982; 49 FR 34362, Aug. 30, 1984; 50 FR 15156, Apr. 17, 1985; 50 FR 33726, Aug. 21, 1985; 50 FR 39114, Sept. 27, 1985]

EFFECTIVE DATE NOTE: At 50 FR 33726, Aug. 21, 1985, in § 571.213, paragraphs S5.4.3.5, S6.2, S6.2.1, S6.2.2 and S6.2.4 were revised; S6.2.5 was removed, and Figs. 6 and 7 were added, effective February 18, 1986. At 50 FR 39114, Sept. 27, 1985, S6.2.1 and S6.2.4 were corrected and Figs. 6 and 7 were correctly designated as 7 and 8. For the convenience of the user, the superseded text is shown below.

§ 571.213 Standard No. 213; Child restraint systems.

* * *

S5.4.3.5 Buckle release. Any buckle in a child restraint system belt assembly designed to restrain a child using the system shall, when tested in accordance with S6.2, not release when a force of not more than 12 pounds is applied before the test specified in S6.1, and (b) release when a force of not more than 20 pounds is applied after the test specified in S6.1.

* * *

S6.2 Buckle release test procedure. The buckles on the belts of each child restraint system equipped with buckled belts shall be tested in accordance with S6.2.1 through S6.2.5.

S6.2.1 Install the child restraint system on a standard seat assembly and place the appropriate test dummy in the system in accordance with S6.1.2.1 through S6.1.2.4.

S6.2.2 Tie a self-adjusting sling to each ankle and wrist of the dummy in the manner illustrated in Figure 4.

* * *

S6.2.4 While applying the force specified in S6.2.3, operate the buckle release mechanism in the manner specified in S5.2(d) of Standard No. 209 (§ 571.209).

* * *

§ 571.214 Standard No. 214; Side door strength.

S1. Purpose and scope. This standard specifies strength requirements for side doors of a motor vehicle to

minimize the safety hazard caused by intrusion into the passenger compartment in a side impact accident.

S2. Application. This standard applies to passenger cars.

S3. Requirements. Each vehicle shall be able to meet the requirements of either, at the manufacturer's option, S3.1 or S3.2 when any of its side doors that can be used for occupant egress are tested according to S4.

S3.1 With any seats that may affect load upon or deflection of the side of the vehicle removed from the vehicle, each vehicle must be able to meet the requirements of S3.1.1 through S3.1.3.

S3.1.1 Initial crush resistance. The initial crush resistance shall not be less than 2,250 pounds.

S3.1.2 Intermediate crush resistance. The intermediate crush resistance shall not be less than 3,500 pounds.

S3.1.3 Peak crush resistance. The peak crush resistance shall not be less than two times the curb weight of the vehicle or 7,000 pounds, whichever is less.

S3.2 With seats installed in the vehicle, and located in any horizontal or vertical position to which they can be adjusted and at any seat back angle to which they can be adjusted, each vehicle must be able to meet the requirements of S3.2.1 through S3.2.2.

S3.2.1 Initial crush resistance. The initial crush resistance shall not be less than 2,250 pounds.

S3.2.2 Intermediate crush resistance. The intermediate crush resistance shall not be less than 4,375 pounds.

S3.2.3 Peak crush resistance. The peak crush resistance shall not be less than three and one half times the curb weight of the vehicle or 12,000 pounds, whichever is less.

S4. Test procedures. The following procedures apply to determining compliance with paragraph S3:

(a) Place side windows in their uppermost position and all doors in locked position. Place the sill of the side of the vehicle opposite to the side being tested against a rigid unyielding vertical surface. Fix the vehicle rigidly in position by means of tiedown attachments located at or forward of the

front wheel centerline and at or rearward of the rear wheel centerline.

(b) Prepare a loading device consisting of a rigid steel cylinder or semicylinder 12 inches in diameter with an edge radius of one-half inch. The length of the loading device shall be such that the top surface of the loading device is at least one-half inch above the bottom edge of the door window opening but not of a length that will cause contact with any structure above the bottom edge of the door window opening during the test.

(c) Locate the loading device as shown in Figure 1 (side view) of this section so that:

(1) Its longitudinal axis is vertical;
(2) Its longitudinal axis is laterally opposite the midpoint of a horizontal line drawn across the outer surface of the door 5 inches above the lowest point of the door;

(3) Its bottom surface is in the same horizontal plane as the horizontal line described in paragraph (c)(2) of this section; and

(4) The cylindrical face of the device is in contact with the outer surface of the door.

(d) Using the loading device, apply a load to the outer surface of the door in an inboard direction normal to a vertical plane along the vehicle's longitudinal centerline. Apply the load continuously such that the loading device travel rate does not exceed one-half

inch per second until the loading device travels 18 inches. Guide the loading device to prevent it from being rotated or displaced from its direction of travel. The test must be completed within 120 seconds.

(e) Record applied load versus displacement of the loading device, either continuously or in increments of not more than 1 inch or 200 pounds for the entire crush distance of 18 inches.

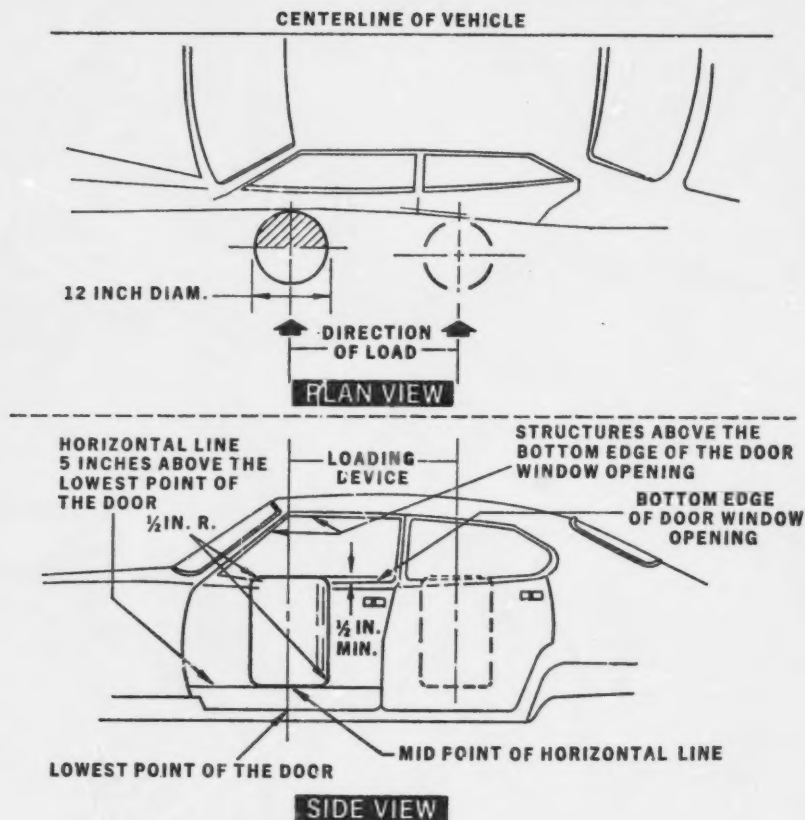
(f) Determine the initial crush resistance, intermediate crush resistance, and peak crush resistance as follows:

(1) From the results recorded in paragraph (e) of this section, plot a curve of load versus displacement and obtain the integral of the applied load with respect to the crush distances specified in paragraphs (f) (2) and (3) of this section. These quantities, expressed in inch-pounds and divided by the specified crush distances, represent the average forces in pounds required to deflect the door those distances.

(2) The initial crush resistance is the average force required to deform the door over the initial 6 inches of crush.

(3) The intermediate crush resistance is the average force required to deform the door over the initial 12 inches of crush.

(4) The peak crush resistance is the largest force recorded over the entire 18-inch crush distance.



LOADING DEVICE LOCATION AND APPLICATION TO THE DOOR

FIGURE 1

[36 FR 22902, Dec. 2, 1971, as amended at 45 FR 17018, Mar. 17, 1980]

§ 571.215 [Reserved]

§ 571.216 Standard No. 216; Roof crush resistance-passenger cars.

S1. Scope. This standard establishes strength requirements for the passenger compartment roof.

S2. Purpose. The purpose of this standard is to reduce deaths and injuries due to the crushing of the roof

into the passenger compartment in rollover accidents.

S3. Application. This standard applies to passenger cars. However, it does not apply to vehicles that conform to the rollover test requirements (S5.3) of Standard 208 (§ 571.208) by means that require no action by vehicle occupants. It also does not apply to convertibles, except for optional com-

pliance with the standard as an alternative to the rollover test requirements in S5.3 of Standard 208.

S4. Requirements. A test device as described in S5 shall not move more than 5 inches, measured in accordance with S6.4, when it is used to apply a force of $1\frac{1}{2}$ times the unloaded vehicle weight of the vehicle or 5,000 pounds whichever is less, to either side of the forward edge of a vehicle's roof in accordance with the procedures of S6. Both the left and right front portions of the vehicle's roof structure shall be capable of meeting the requirements, but a particular vehicle need not meet further requirements after being tested at one location.

S5. Test device. The test device is a rigid unyielding block with its lower surface formed as a flat rectangle 30 inches $\times$ 72 inches.

S6. Test procedure. Each vehicle shall be capable of meeting the requirements of S4 when tested in accordance with the following procedure.

S6.1 Place the sills or the chassis frame of the vehicle on a rigid horizontal surface, fix the vehicle rigidly in position, close all windows, close and lock all doors, and secure any convertible top or removable roof structure in place over the passenger compartment.

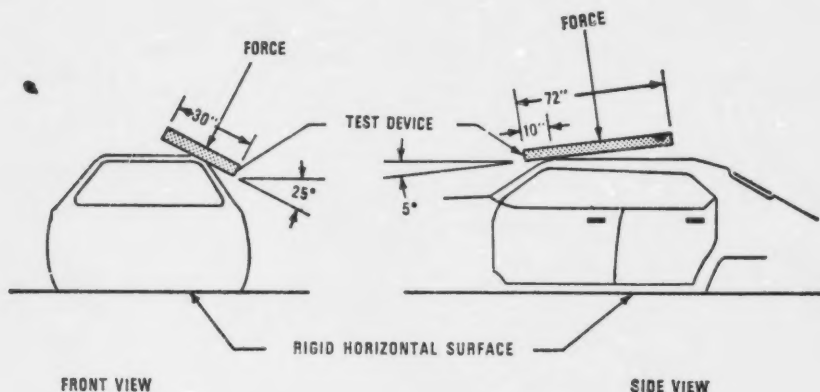
S6.2 Orient the test device as shown in Figure 1, so that—

(a) Its longitudinal axis is at a forward angle (side view) of 5° below the horizontal, and is parallel to the vertical plane through the vehicle's longitudinal centerline;

(b) Its lateral axis is at a lateral outboard angle, in the front view projection, of 25° below the horizontal;

(c) Its lower surface is tangent to the surface of the vehicle; and

(d) The initial contact point, or center of the initial contact area, is on the longitudinal centerline of the lower surface of the test device and 10 inches from the forwardmost point of that centerline.



TEST DEVICE LOCATION AND APPLICATION TO THE ROOF

Figure 1

S6.3 Apply force in a downward direction perpendicular to the lower surface of the test device at a rate of not more than one-half inch per second until reaching a force of $1\frac{1}{2}$ times the

unloaded vehicle weight of the tested vehicle or 5,000 pounds, whichever is less. Complete the test within 120 seconds. Guide the test device so that throughout the test it moves, without

rotation, in a straight line with its lower surface oriented as specified in S6.2(a) through S6.2(d).

S6.4 Measure the distance that the test device moves, i.e., the distance between the original location of the lower surface of the test device and its location as the force level specified in S6.3 is reached.

[36 FR 23300, Dec. 8, 1971, as amended at 38 FR 21930, Aug. 14, 1973]

§ 571.217 Standard No. 217: Bus window retention and release.

S1. Scope. This standard establishes requirements for the retention of windows other than windshields in buses, and establishes operating forces, opening dimensions, and markings for pushout bus windows and other emergency exits.

S2. Purpose. The purpose of this standard is to minimize the likelihood of occupants being thrown from the bus and to provide a means of readily accessible emergency egress.

S3. Application. This standard applies to buses, except buses manufactured for the purpose of transporting persons under physical restraint.

S4. Definitions. "Push-out window" means a vehicle window designed to open outward to provide for emergency egress.

"Adjacent seat" means a designated seating position located so that some portion of its occupant space is not more than 10 inches from an emergency exit, for a distance of at least 15 inches measured horizontally and parallel to the exit.

"Occupant space" means the space directly above the seat and footwell, bounded vertically by the ceiling and horizontally by the normally positioned seat back and the nearest obstruction of occupant motion in the direction the seat faces.

S5. Requirements.

S5.1 Window retention. Except as provided in S5.1.2, each piece of window glazing and each surrounding window frame when tested in accordance with the procedure in S5.1.1 under the conditions of S6.1 through S6.3, shall be retained by its surrounding structure in a manner that prevents the formation of any opening large enough to admit the passage of a

4-inch diameter sphere under a force, including the weight of the sphere, of 5 pounds until any one of the following events occurs:

(a) A force of 1,200 pounds is reached.

(b) At least 80 percent of the glazing thickness has developed cracks running from the load contact region to the periphery at two or more points, or shattering of the glazing occurs.

(c) The inner surface of the glazing at the center of force application has moved relative to the window frame, along a line perpendicular to the undisturbed inner surface, a distance equal to one-half of the square root of the minimum surface dimension measured through the center of the area of the entire sheet of window glazing.

S5.1.1 An increasing force shall be applied to the window glazing through the head form specified in Figure 4, outward and perpendicular to the undisturbed inside surface at the center of the area of each sheet of window glazing, with a head form travel of 2 inches per minute.

S5.1.2 The requirements of this standard do not apply to a window whose minimum surface dimension measured through the center of its area is less than 8 inches.

S5.2 Provision of emergency exits.

Buses other than schoolbuses shall provide unobstructed openings for emergency exit which collectively amount, in total square inches, to at least 67 times the number of designated seating positions on the bus. At least 40 percent of the total required area of unobstructed openings, computed in the above manner, shall be provided on each side of a bus. However, in determining the total unobstructed openings provided by a bus, no emergency exit, regardless of its area, shall be credited with more than 536 square inches of the total area requirement. School buses shall provide openings for emergency exits that conform to S5.2.3.

S5.2.1 Buses with GVWR of more than 10,000 pounds. Except as provided in S5.2.1.1, buses with a GVWR of more than 10,000 pounds shall meet the unobstructed openings requirements by providing side exits and at least one rear exit that conforms to

S5.3 through S5.5. The rear exit shall meet the requirements when the bus is upright and when the bus is overturned on either side, with the occupant standing facing the exit. When the bus configuration precludes installation of an accessible rear exit, a roof exit that meets the requirements of S5.3 through S5.5 when the bus is overturned on either side, with the occupant standing facing the exit, shall be provided in the rear half of the bus.

S5.2.1.1 A bus with GVWR of more than 10,000 pounds may satisfy the unobstructed openings requirement by providing at least one side door for each three passenger seating positions in the vehicle.

S5.2.2 *Buses with a GVWR of 10,000 pounds or less.* Buses with a GVWR of 10,000 pounds or less may meet the unobstructed openings requirement by providing:

(a) Devices that meet the requirements of S5.3 through S5.5 without using remote controls or central power systems;

(b) Windows that can be opened manually to a position that provides an opening large enough to admit unobstructed passage, keeping a major axis horizontal at all time, of an ellipsoid generated by rotating about its minor axis an ellipse having a major axis of 20 inches and a minor axis of 13 inches; or

(c) Doors.

S5.2.3 *School buses.*

S5.2.3.1 Each school bus shall comply with either one of the following minimum emergency exit provisions, chosen at the option of the manufacturer:

(a) One rear emergency door that opens outward and is hinged on the right side (either side in the case of a bus with a GVWR of 10,000 pounds or less); or

(b) One emergency door on the vehicle's left side that is in the rear half of the bus passenger compartment and is hinged on its forward side, and a push-out rear window that provides a minimum opening clearance 16 inches high and 48 inches wide. This window shall be releasable by operation of not more than two mechanisms which are located in the high force access region as shown in Figure 3C, and which do not

have to be operated simultaneously. Release and opening of the window shall require force applications, not to exceed 40 pounds, in the directions specified in S5.3.2.

S5.2.3.2 The engine starting system of a school bus shall not operate if any emergency exit is locked from either inside or outside the bus. For purposes of this requirement, "locked" means that the release mechanism cannot be activated by a person at the door without a special device such as a key or special information such as a combination.

S5.3 *Emergency exit release.*

S5.3.1 Each push-out window or other emergency exit not required by S5.2.3 shall be releasable by operating one or two mechanisms located within the regions specified in Figure 1, Figure 2, or Figure 3. The lower edge of the region in Figure 1, and Region B in Figure 2, shall be located 5 inches above the adjacent seat, or 2 inches above the armrest, if any, whichever is higher.

S5.3.2 When tested under the conditions of S6., both before and after the window retention test required by S5.1, each emergency exit not required by S5.2.3 shall allow manual release of the exit by a single occupant using force applications each of which conforms, at the option of the manufacturer, either to (a) or (b). The release mechanism or mechanisms shall require for release one or two force applications, at least one of which differs by a 90° to 180° from the direction of the initial push-out motion of the emergency exit (outward and perpendicular to the exit surface).

(a) Low-force application.

(1) *Location.* As shown in Figure 1 or Figure 3.

(2) *Type of motion.* Rotary or straight.

(3) *Magnitude.* Not more than 20 pounds.

(b) High force application.

(1) *Location.* As shown in Figure 2 or Figure 3.

(2) *Type of motion.* Straight, perpendicular to the undisturbed exit surface.

(3) *Magnitude.* Not more than 60 pounds.

S5.3.3 When tested under the conditions of S6., both before and after the window retention test required by S5.1, each school bus emergency door shall allow manual release of the door by a single person, from both inside and outside the bus passenger compartment, using a force application that conforms to paragraphs (a) through (c) except a school bus with a GVWR of 10,000 pounds or less does not have to conform to paragraph (a). Each release mechanism shall operate without the use of remote controls or tools, and notwithstanding any failure of the vehicle's power system. When the release mechanism is not in the closed position and the vehicle ignition is in the "on" position, a continuous warning sound shall be audible at the driver's seating position and in the vicinity of the emergency door having the unclosed mechanism.

(a) **Location:** Within the high force access region shown in Figure 3A for a side emergency door, and in Figure 3D for a rear emergency door.

(b) **Type of motion:** Upward from inside the bus; at the discretion of the manufacturer from outside the bus.

Buses with a GVWR of 10,000 pounds or less shall provide interior release mechanisms that operate by either an upward or pull-type motion. The pull-type motion shall be used only when the release mechanism is recessed in such a manner that the handle, lever, or other activating device does not protrude beyond the rim of the recessed receptacle.

(c) **Magnitude of force:** Not more than 40 pounds.

S5.4 Emergency exit extension.

S5.4.1 After the release mechanism has been operated, each push-out window or other emergency exit not required by S5.2.3 shall, under the conditions of S6., before and after the window retention test required by S5.1, using the reach distances and corresponding force levels specified in S5.3.2, be manually extendable by a single occupant to a position that provides an opening large enough to admit unobstructed passage, keeping a major axis horizontal at all times, of an ellipsoid generated by rotating about its minor axis an ellipse having

a major axis of 20 inches and a minor axis of 13 inches.

S5.4.2 School bus emergency exit extension.

S5.4.2.1 School bus with a GVWR of more than 10,000 pounds. After the release mechanism has been operated, the emergency door of a school bus with a GVWR of more than 10,000 pounds shall, under the conditions of S6., before and after the window retention test required by S5.1, using the force levels specified in S5.3.3, be manually extendable by a single person to a position that permits—

(a) In the case of rear emergency door, an opening large enough to permit unobstructed passage of a rectangular parallelepiped 45 inches high, 24 inches wide, and 12 inches deep, keeping the 45-inch dimension vertical, the 24-inch dimension parallel to the opening, and the lower surface in contact with the floor of the bus at all times; and

(b) In the case of a side emergency door, an opening at least 45 inches high and 24 inches wide. A vertical transverse plane tangent to the rear-most point of a seat back shall pass through the forward edge of a side emergency door.

S5.4.2.2 School bus with a GVWR of 10,000 pounds or less. A school bus with a GVWR of 10,000 pounds or less shall conform to all the provisions of S5.4.2, except that the parallelepiped dimension for the opening of the rear emergency door or doors shall be 45 inches high, 22 inches wide, and 6 inches deep.

S5.5 Emergency exit identification.

S5.5.1 In buses other than school buses, except for windows serving as emergency exits in accordance with S5.2.2(b) and doors in buses with a GVWR of 10,000 pounds or less, each emergency door shall have the designation "Emergency Door" or "Emergency Exit" and each push-out window or other emergency exit shall have the designation "Emergency Exit" followed by concise operating instructions describing each motion necessary to unlatch and open the exit, located within 6 inches of the release mechanism.

EXAMPLES

- (1) Lift to Unlatch, Push to Open
- (2) Lift Handle and Push out to Open

When a release mechanism is not located within an occupant space of an adjacent seat, a label meeting the requirements of S5.5.2 that indicates the location of the nearest release mechanism shall be placed within the occupant space.

EXAMPLE

Emergency exit instructions located next to seat ahead.

**EXAMPLE: "EMERGENCY EXIT
INSTRUCTIONS LOCATED NEXT TO SEAT
AHEAD"**

S5.5.2 In buses other than school buses. Except as provided in S5.5.2.1, each marking shall be legible, when the only source of light is the normal nighttime illumination of the bus interior, to occupants having corrected visual acuity of 20/40 (Snellen ratio) seated in the adjacent seat, seated in the seat directly adjoining the adjacent seat, and standing in the aisle location that is closest to that adjacent seat. The marking shall be legible from each of these locations when the other two corresponding locations are occupied.

S5.5.2.1 If the exit has no adjacent seat, the marking must meet the legibility requirements of S5.5.2 for occupants standing in the aisle location nearest to the emergency exit, except for a roof exit, which must meet the legibility requirements for occupants positioned with their backs against the floor opposite the roof exit.

S5.5.3 *School Bus.* Each school bus emergency exit provided in accordance with S5.2.3.1 shall have the designation "Emergency Door" or "Emergency Exit," as appropriate, in letters at least 2 inches high, of a color that contrasts with its background, located at the top of or directly above the emergency exit on both the inside and outside surfaces of the bus. Concise operating instructions describing the motions necessary to unlatch and open the emergency exit, in letters at least three-eighths of an inch high, of a color that contrasts with its background, shall be located within 6 inches of the release mechanism on the inside surface of the bus.

EXAMPLE

- (1) Lift to Unlatch, Push to Open
- (2) Lift Handle, Push Out to Open

S6. Test conditions.

S6.1 The vehicle is on a flat, horizontal surface.

S6.2 The inside of the vehicle and the outside environment are kept at any temperature from 70° to 85° Fahrenheit for 4 hours immediately preceding the tests, and during the tests.

S6.3 For the window retention test, windows are installed, closed, and latched (where latches are provided) in the condition intended for normal bus operation.

S6.4 For the emergency exit release and extension tests, windows are installed as in S6.3, seats, armrests, and interior objects near the windows are installed as for normal use, and seats are in the upright position.

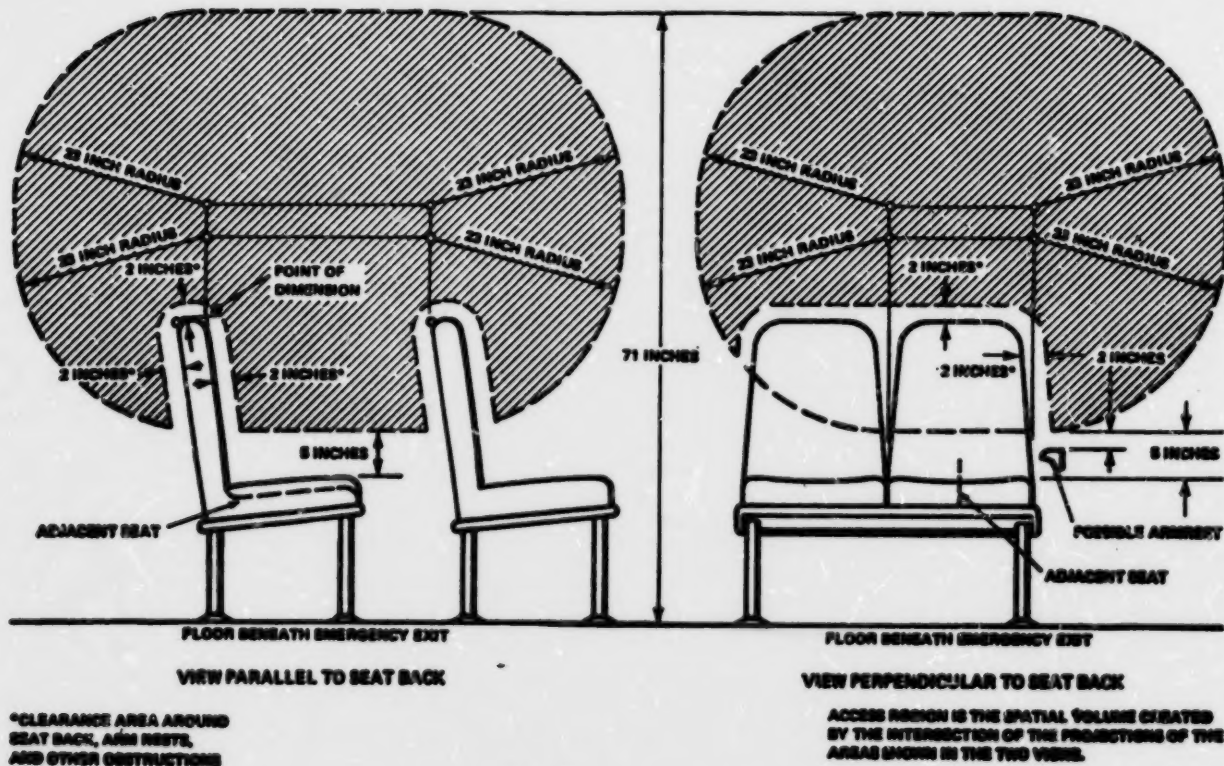
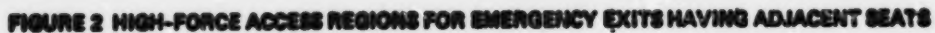
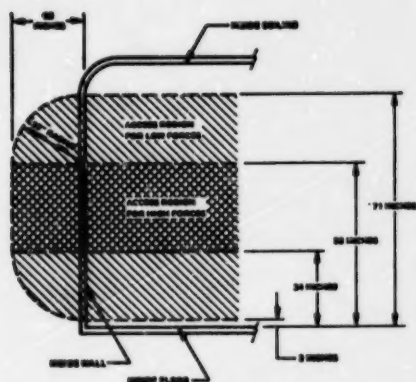


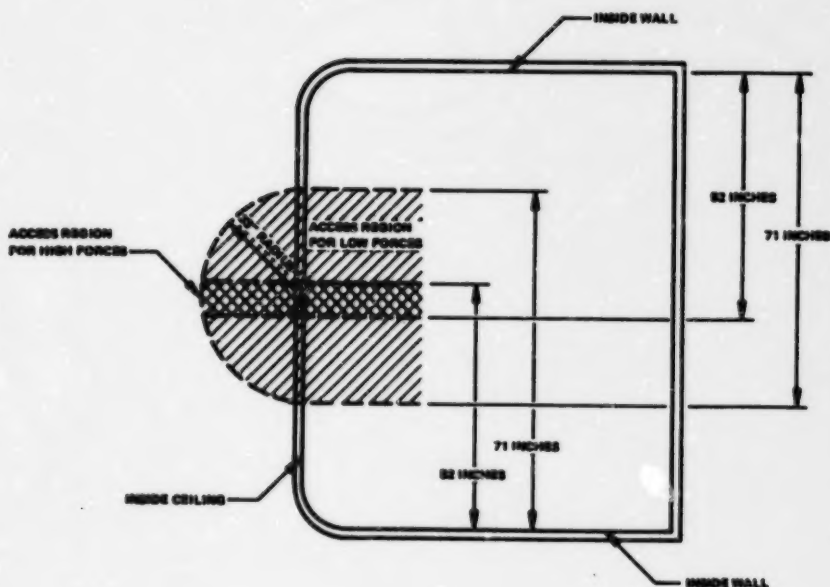
FIGURE 1 LOW-FORCE ACCESS REGION FOR EMERGENCY EXITS HAVING ADJACENT SEATS



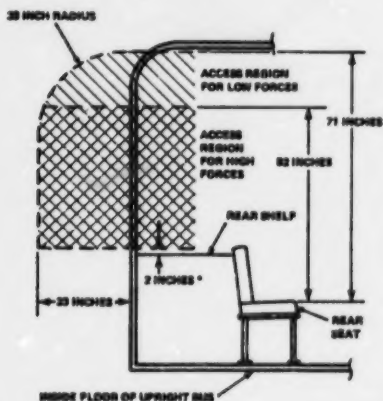
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3A. SIDE EMERGENCY EXIT



3B. ROOF EMERGENCY EXIT



TYPICAL CLEARANCE AROUND OBSTRUCTIONS

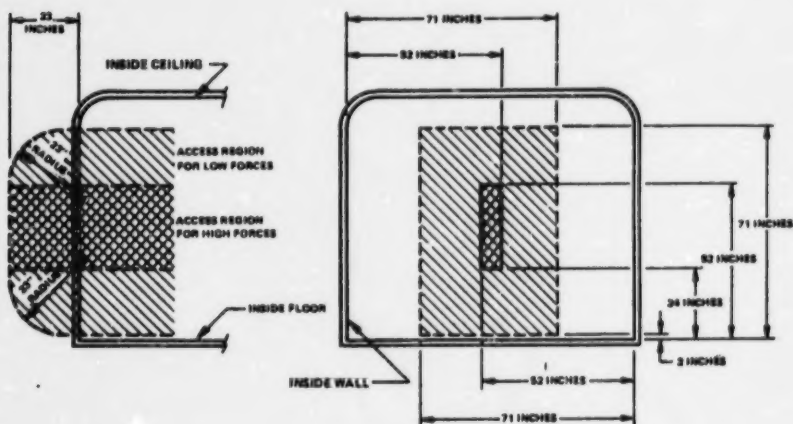
3C. REAR EMERGENCY EXIT WITH REAR OBSTRUCTION**3D. REAR EMERGENCY EXIT WITHOUT REAR OBSTRUCTION**

FIGURE 3 LOW AND HIGH-FORCE ACCESS REGIONS FOR EMERGENCY EXITS WITHOUT ADJACENT SEATS

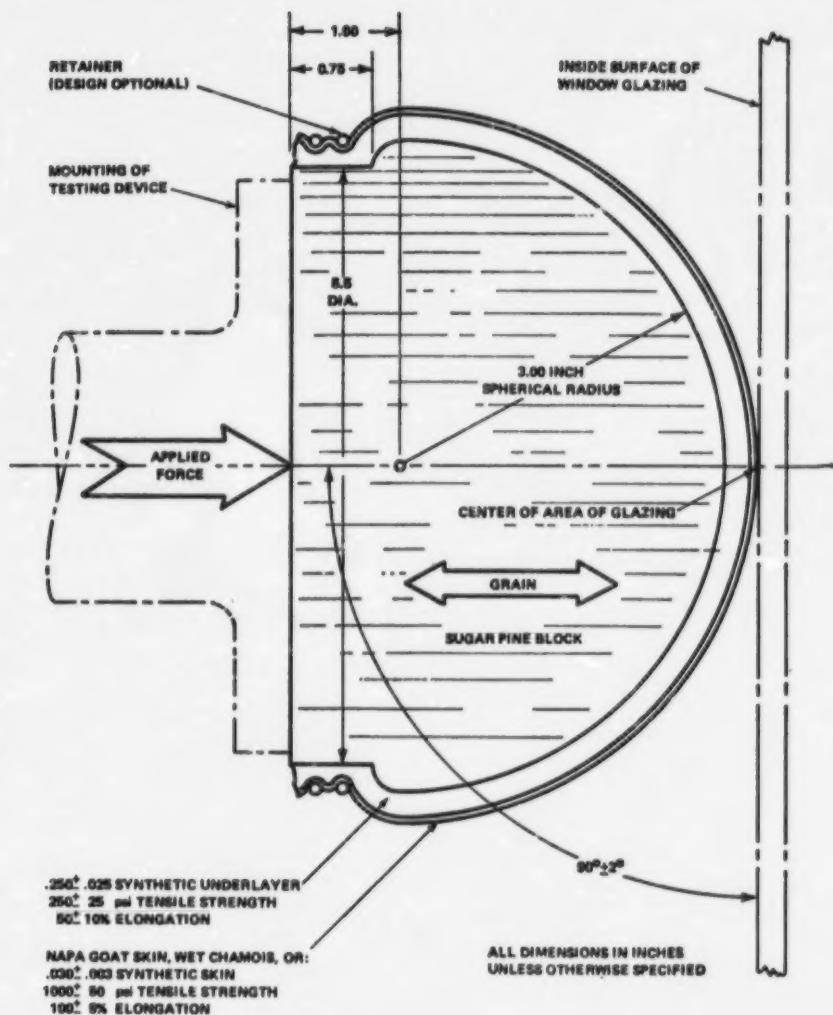


FIGURE 4 HEAD FORM

(Secs. 103, 119, Pub. L. 89-563; 80 Stat. 713 (15 U.S.C. 1392, 1407); Sec. 202, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1392); delegations of authority at 49 CFR 1.50)

[37 FR 9395, May 10, 1972, as amended at 37 FR 18035, Sept. 6, 1972; 38 FR 6070, Mar. 6, 1973; 38 FR 7562, Mar. 28, 1973; 39 FR 15274, May 2, 1974; 40 FR 48512, Oct. 16, 1975; 41 FR 3872, Jan. 27, 1976; 41 FR 22357, June 3, 1976; 41 FR 24592, June 17, 1976; 41 FR 36027, Aug. 26, 1976; 47 FR 7256, Feb. 18, 1982; 47 FR 37555, Aug. 26, 1982]

§ 571.218 Standard No. 218: Motorcycle helmets.

S1. Scope. This standard establishes minimum performance requirements for helmets designed for use by motorcyclists and other motor vehicle users.

S2. Purpose. The purpose of this standard is to reduce deaths and injuries to motorcyclists and other motor vehicle users resulting from head impacts.

S3. Application. This standard applies to helmets designed for use by motorcyclists and other motor vehicle users. The requirements of this standard apply to all helmets that can be placed on the size C headform using normal fitting procedures. Helmets that cannot be placed on the size C headform will not be covered by this standard until it is extended to those sizes by further amendment.

S4. Definitions.

"Basic plane" means a plane through the centers of the right and left external ear openings and the lower edge of the eye sockets (Figure 1) of a reference headform (Figure 2) or test headform.

"Midsagittal plane" means a longitudinal plane through the apex of a reference headform or test headform that is perpendicular to the basic plane (Figure 3).

"Reference plane" means a plane above and parallel to the basic plane on a reference headform or test headform (Figure 2) at the distance indicated in the Appendix.

"Reference headform" means a measuring device contoured to the dimensions of one of the four headforms described in the Appendix, with surface markings indicating the locations of the basic, midsagittal, and reference planes, and the centers of the external ear openings.

"Test headform" means a test device contoured to the dimensions of one of the four reference headforms described in the Appendix for all surface areas that contact the helmet, with surface markings indicating the locations of the basic, midsagittal, and reference planes.

"Retention system" means the complete assembly by which the helmet is retained in position on the head during use.

"Helmet positioning index" means the distance in inches, as specified by the manufacturer, from the lowest point of the brow opening at the lateral midpoint of the helmet to the basic plane of a reference headform, when the helmet is firmly and properly positioned on the reference headform.

S5. Requirements. Each helmet shall meet the requirements of S5.1 through S5.3 when subjected to any conditioning procedure specified in S6.3, and tested in accordance with S7.

S5.1 Impact attenuation. When an impact attenuation test is conducted in accordance with S7.1, all of the following requirements shall be met:

(a) Peak accelerations shall not exceed 400g;

(b) Accelerations in excess of 200g shall not exceed a cumulative duration of 2.0 milliseconds; and

(c) Accelerations in excess of 15G shall not exceed a cumulative duration of 4.0 milliseconds.

S5.2 Penetration. When a penetration test is conducted in accordance with S7.2, the striker shall not contact the surface of the test headform.

S5.3 Retention system.

S5.3.1 When tested in accordance with S7.3:

(a) The retention system or its components shall attain the loads specified without separation; and

(b) The adjustable portion of the retention system test device shall not move more than 1 inch measured between preliminary and test load positions.

S5.3.2 Where the retention system consists of components which can be independently fastened without securing the complete assembly, each such component shall independently meet the requirements of S5.3.1.

S5.4 Configuration. Each helmet shall have a protective surface of continuous contour at all points on or above the test line described in S6.1.3. The helmet shall provide peripheral vision clearance of at least 105° to each side of the midsagittal plane, when the helmet is adjusted as specified in S6.2. The vertex of these angles, shown in Figure 3, shall be at the point on the anterior surface of the reference headform at the intersection of the midsagittal and basic planes. The brow opening of the helmet shall be at least 1 inch above all points in the basic plane that are within the angles of peripheral vision (see Figure 3).

S5.5 Projections. A helmet shall not have any rigid projections inside its shell. Rigid projections outside any helmet's shell shall be limited to those required for operation of essential accessories, and shall not protrude more than 0.19 inch.

S5.6 Labeling.

S5.6.1 Each helmet shall be permanently and legibly labeled, in a manner such that the label(s) can be easily read without removing padding or any other permanent part, with the following:

- (1) Manufacturer's name or identification.
- (2) Precise model designation.
- (3) Size.
- (4) Month and year of manufacture. This may be spelled out (e.g., June 1974), or expressed in numerals (e.g., 6/74).
- (5) The symbol DOT, constituting the manufacturer's certification that the helmet conforms to the applicable Federal Motor Vehicle Safety Standards. This symbol shall appear on the outer surface, in a color that contrasts with the background, in letters at least $\frac{3}{4}$ inch high, centered laterally approximately $1\frac{1}{4}$ inches from the bottom edge of the posterior portion of the helmet.

(6) Instruction to the purchaser as follows:

"Shell and liner constructed of (identify type(s) of materials).

"Helmet can be seriously damaged by some common substances without damage being visible to the user. Apply only the following: (Recom-

mended cleaning agents, paints, adhesives, etc., as appropriate).

"Make no modifications. Fasten helmet securely. If helmet experiences a severe blow, return it to the manufacturer for inspection, or destroy and replace it." (Or an attached tag, brochure, or other suitable means, any additional, relevant safety information should be supplied at the time of purchase.)

S5.7 Helmet positioning index. Each manufacturer of helmets shall establish a positioning index for each helmet he manufactures. This index shall be furnished immediately to any person who requests the information, with respect to a helmet identified by manufacturer, model designation, and size.

S6. Preliminary test procedures. Before subjecting a helmet to the testing sequence specified in S7., prepare it according to the following procedures.

S6.1 Reference marking.

S6.1.1 Use a reference headform that is firmly seated with the basic and reference planes horizontal. Place the complete helmet to be tested on the reference headform of the largest size specified in the Appendix whose circumference is not greater than the internal circumference of the headband when adjusted to its largest setting, or if no headband is provided to the corresponding interior surface of the helmet.

S6.1.2 Apply a 10-pound static load normal to the helmet's apex. Center the helmet laterally and seat it firmly on the reference headform according to its helmet positioning index.

S6.1.3 Maintaining the load and position described in S6.1.2, draw a line (hereinafter referred to as "test line") on the outer surface of the helmet coinciding with portions of the intersection of that surface with the following planes, as shown in Figure 2:

- (a) A plane 1 inch above and parallel to the reference plane in the anterior portion of the reference headform;
- (b) A vertical transverse plane 2.5 inches behind the point on the anterior surface of the reference headform at the intersection of the midsagittal and reference planes;

(c) The reference plane of the reference headform;

(d) A vertical transverse plane 2.5 inches behind the center of the external ear opening in a side view; and

(e) A plane 1 inch below and parallel to the reference plane in the posterior portion of the reference headform.

S6.2 Helmet positioning. Prior to each test, fix the helmet on a test headform in the position that conforms to its helmet positioning index. Secure the helmet so that it does not shift position prior to impact or to application of force during testing.

S6.2.1 In testing as specified in S7.1 and S7.2, place the retention system in a position such that it does not interfere with free fall, impact, or penetration.

S6.3 Conditioning. Immediately prior to conducting the testing sequence specified in S7., condition each test helmet in accordance with any one of the following procedures:

(a) *Ambient conditions.* Expose to a temperature of 70° F. and a relative humidity of 50 percent for 12 hours.

(b) *Low temperature.* Expose to a temperature of 14° F. for 12 hours.

(c) *High temperature.* Expose to a temperature of 122° F. for 12 hours.

(d) *Water immersion.* Immerse in water at a temperature of 77° F. for 12 hours.

If during testing, the time out of the conditioning environment for a test helmet exceeds 5 minutes, return the helmet to the conditioning environment for a minimum of 3 minutes for each minute out of the conditioning environment or 12 hours, whichever is less, prior to resumption of testing.

S7. Test conditions.

S7.1 Impact attenuation test.

S7.1.1 Impact attenuation is measured by determining acceleration imparted to an instrumented test headform on which a complete helmet is mounted as specified in S6.2, when it is dropped in guided free fall upon fixed hemispherical and flat steel anvils.

S7.1.2 Each helmet is impacted at four sites with two successive, identical impacts at each site. Two of these sites are impacted upon a flat steel anvil and two upon a hemispherical steel anvil as specified in S7.1.7 and

S7.1.8. The impact sites are at any point on the area above the test line described in S6.1.3, and separated by a distance not less than one-sixth of the maximum circumference of the helmet.

S7.1.3 The guided free fall drop heights for the helmet and test headform combination onto the hemispherical anvil and flat anvil are 54.5 inches and 72 inches, respectively.

S7.1.4 Test headforms for impact attenuation testing are constructed of magnesium alloy (K-1A), and exhibit no resonant frequencies below 3,000 Hz.

S7.1.5 Weight of the drop assembly, as specified in Table I, is the combined weight of the instrumented test headform and supporting assembly for the drop test. The weight of the supporting assembly does not exceed 20% of the weight of the drop assembly. The center of gravity of the combined test headform and supporting assembly lies within a cone with its axis vertical and forming a 10° included angle with the vertex at the point of impact.

S7.1.6 The acceleration transducer is mounted at the center of gravity of the combined test headform and supporting assembly with the sensitive axis aligned to within 5° of vertical when the test headform is in the impact position. The acceleration data channel complies with SAE Recommended Practice J211 requirements for channel class 1,000.

S7.1.7 The flat anvil is constructed of steel with a 5-inch minimum diameter impact face, and the hemispherical anvil is constructed of steel with a 1.9-inch radius impact face.

S7.1.8 The rigid mount for both of the anvils consists of a solid mass of at least 300 pounds, the outer surface of which consists of a steel plate with minimum thickness of 1 inch and minimum surface area of 1 ft².

S7.2 Penetration test.

S7.2.1 The penetration test is conducted by dropping the penetration test striker in guided free fall, with its axis aligned vertically, onto the outer surface of the complete helmet, when mounted as specified in S6.2, at any point above the test line, described in S6.1.3, except on a fastener or other rigid projection.

S7.2.2 Two penetration blows are applied at least 3 inches apart, and at least 3 inches from the centers of any impacts applied during the impact attenuation test.

S7.2.3 The height of the guided free fall is 118.1 inches, as measured from the striker point to the impact point on the outer surface of the test helmet.

S7.2.4 The contractable surfaces of the penetration test headforms are constructed of a metal or metallic alloy having a Brinell hardness number no greater than 55, which will readily permit detection should contact by the striker occur. The surface is refinished if necessary prior to each penetration test blow to permit detection of contact by the striker.

S7.2.5 The weight of the penetration striker is 6 pounds, 10 ounces.

S7.2.6 The point of the striker has an included angle of 60°, a cone height of 1.5 inches, a tip radius of 0.019 inch (standard 0.5 millimeter radius) and a minimum hardness of 60 Rockwell, C-scale.

S7.2.7 The rigid mount for the penetration test headform is as described in S7.1.8

S7.3 *Retention system test.*

S7.3.1 The retention system test is conducted by applying a static tensile load to the retention assembly of a complete helmet, which is mounted, as described in S6.2, on a stationary test headform as shown in Figure 4, and by measuring the movement of the ad-

justable portion of the retention system test device under tension.

S7.3.2 The retention system test device consists of both an adjustable loading mechanism by which a static tensile load is applied to the helmet retention assembly and a means for holding the test headform and helmet stationary. The retention assembly is fastened around two freely moving rollers, both of which have a 0.5 inch diameter and a 3-inch center-to-center separation, and which are mounted on the adjustable portion of the tensile loading device (Figure 4). The helmet is fixed on the test headform as necessary to ensure that it does not move during the application of the test loads to the retention assembly.

S7.3.3 A 50-pound preliminary test load is applied to the retention assembly, normal to the basic plane of the test headform and symmetrical with respect to the center of the retention assembly for 30 seconds, and the maximum distance from the extremity of the adjustable portion of the retention system test device to the apex of the helmet is measured.

S7.3.4 An additional 250-pound test load is applied to the retention assembly, in the same manner and at the same location as described in S7.3.3, for 120 seconds, and the maximum distance from the extremity of the adjustable portion of the retention system test device to the apex of the helmet is measured.

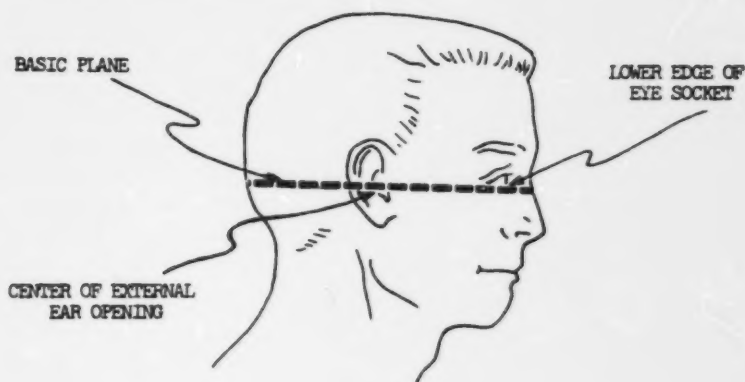
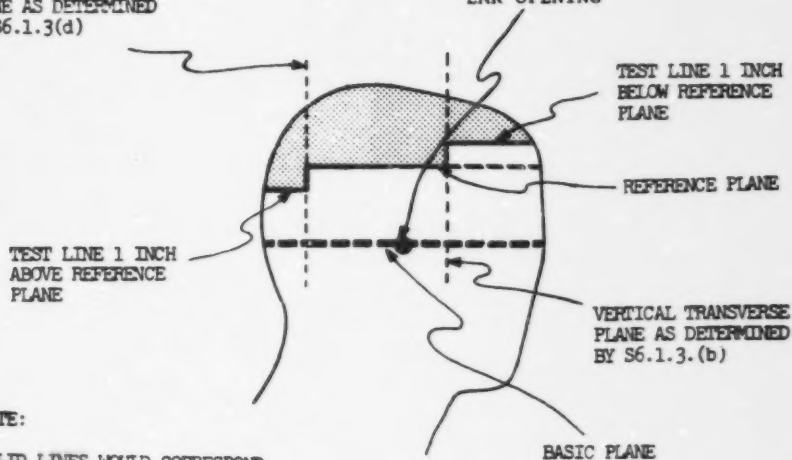


Figure 1

VERTICAL TRANSVERSE
PLANE AS DETERMINED
BY S6.1.3(d)

CENTER OF EXTERNAL
EAR OPENING



NOTE:

SOLID LINES WOULD CORRESPOND
TO THE TEST LINE ON A TEST
HELMET.

 TEST SURFACE

Figure 2

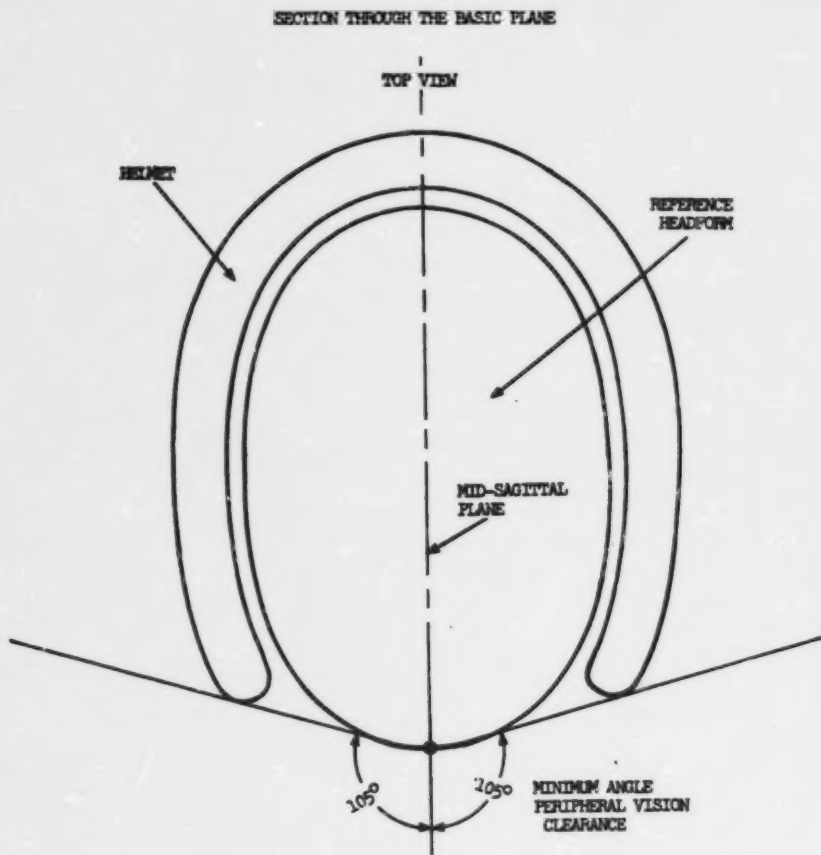
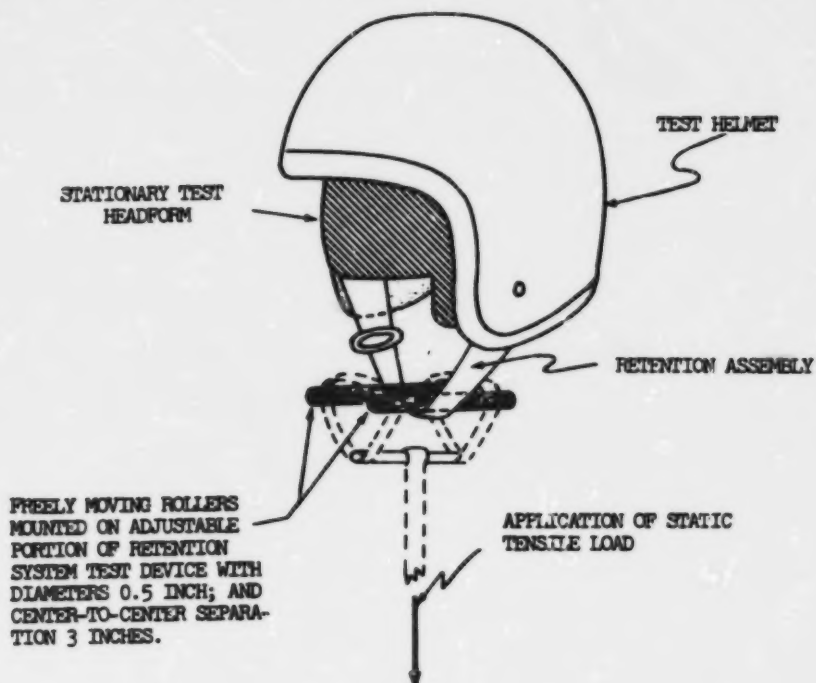


Figure 3



RETENTION SYSTEM TEST DEVICE

Figure 4

TABLE I.—WEIGHTS FOR IMPACT ATTENUATION
TEST DROP ASSEMBLY

Reference headform size	Weight (lbs)*
A.....	7.8
B.....	8.9
C.....	11.0

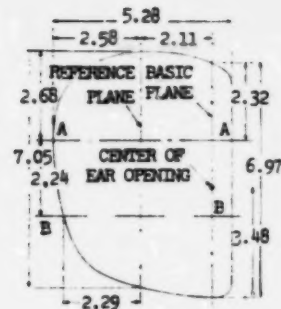
TABLE I.—WEIGHTS FOR IMPACT ATTENUATION
TEST DROP ASSEMBLY—Continued

Reference headform size	Weight (lbs)*
D.....	13.4

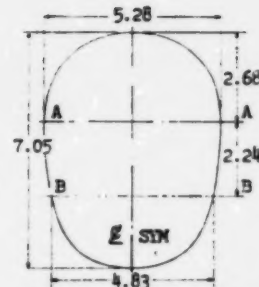
*Combined weight of instrumented test headform and supporting assembly for drop test.

APPENDIX

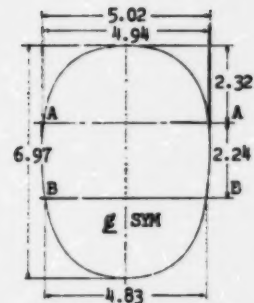
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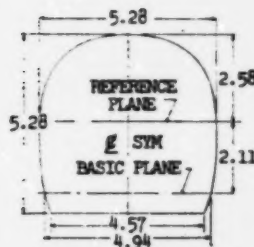
CONTOUR AT E



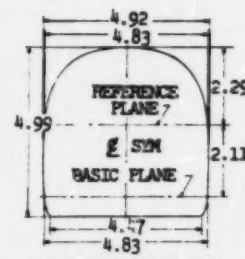
CONTOUR AT REFERENCE PLANE



CONTOUR AT BASIC PLANE



CONTOUR AT PLANE A-A



CONTOUR AT PLANE B-B

HEADFORM A

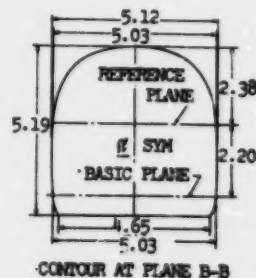
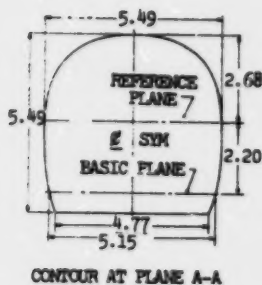
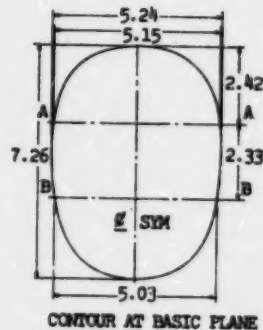
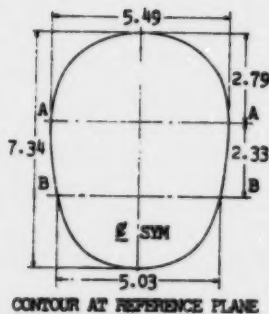
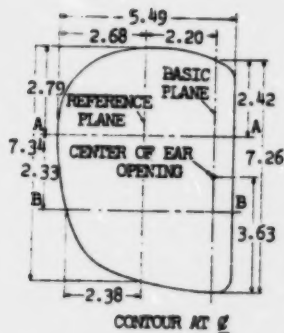
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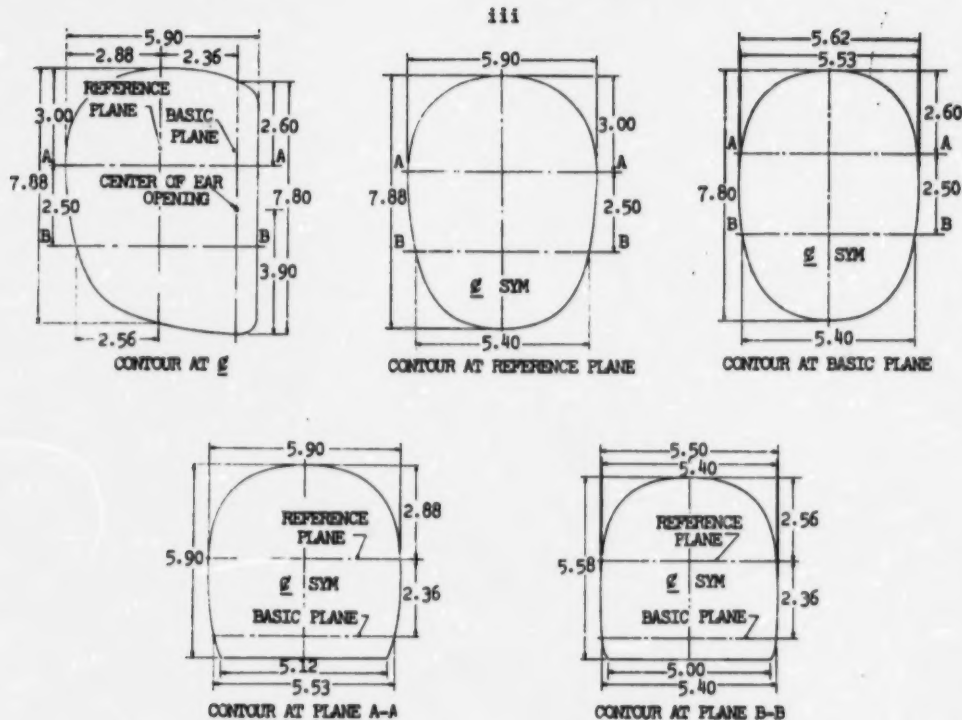
HEADFORM B

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HEADFORM C

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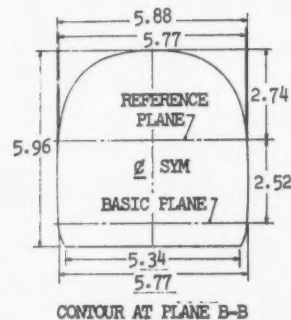
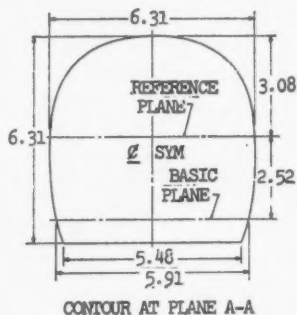
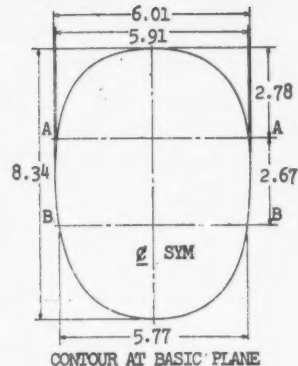
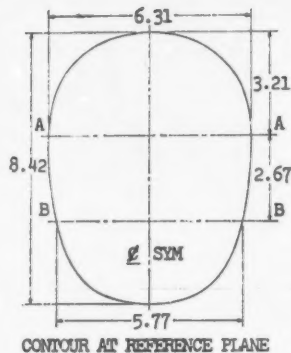
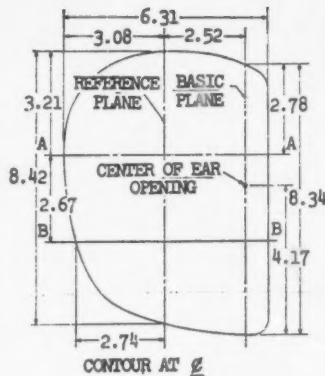
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HEADFORM D

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[38 FR 22391, Aug. 20, 1973, as amended at 39 FR 3554, Jan. 28, 1974; 45 FR 15181, Mar. 10, 1980]

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§ 571.219 Standard No. 219: Windshield zone intrusion.

S1. Scope. This standard specifies limits for the displacement into the windshield area of motor vehicle components during a crash.

S2. Purpose. The purpose of this standard is to reduce crash injuries and fatalities that result from occupants contacting vehicle components displaced near or through the windshield.

S3. Application. This standard applies to passenger cars and to multipurpose passenger vehicles, trucks and buses of 10,000 pounds or less gross vehicle weight rating. However, it does not apply to forward control vehicles, walk-in van-type vehicles, or to open-body-type vehicles with fold-down or removable windshields.

S4. Definitions. "Daylight Opening" (DLO) means the maximum unobstructed opening through the glazing surface, including reveal or garnish moldings adjoining the surface, as measured parallel to the outer surface of the glazing material.

S5. Requirement. When the vehicle traveling longitudinally forward at any speed up to and including 30 mph impacts a fixed collision barrier that is perpendicular to the line of travel of the vehicle, under the conditions of S7., no part of the vehicle outside the occupant compartment, except windshield molding and other components designed to be normally in contact with the windshield, shall penetrate the protected zone template, affixed according to S6., to a depth of more than one-quarter inch, and no such part of a vehicle shall penetrate the inner surface of that portion of the windshield, within the DLO, below the protected zone defined in S6.

S6. Protected zone template.

S6.1 The lower edge of the protected zone is determined by the following procedure (see Figure 1).

(a) Place a 6.5-inch diameter rigid sphere, weighing 15 pounds, in a position such that it simultaneously contacts the inner surface of the windshield glazing and the surface of the instrument panel, including padding. If any accessories or equipment such as the steering control system obstruct positioning of the sphere, remove

them for the purposes of this procedure.

(b) Draw the locus of points on the inner surface of the windshield contactable by the sphere across the width of the instrument panel. From the outermost contactable points, extend the locus line horizontally to the edges of the glazing material.

(c) Draw a line on the inner surface of the windshield below and one-half inch distant from the locus line.

(d) The lower edge of the protected zone is the longitudinal projection onto the outer surface of the windshield of the line determined in S6.1(c).

S6.2 The protected zone is the space enclosed by the following surfaces, as shown in Figure 1:

(a) The outer surface of the windshield in its precrash configuration.

(b) The locus of points 3 inches outward along perpendiculars drawn to each point on the outer surface of the windshield.

(c) The locus of lines forming a 45° angle with the outer surface of the windshield at each point along the top and side edges of the outer surface of the windshield and the lower edge of the protected zone determined in S6.1, in the plane perpendicular to the edge at that point.

S6.3 A template is cut or formed from Styrofoam, type DB, cut cell, to the dimensions of the zone as determined in S6.2. The template is affixed to the windshield so that it delineates the protected zone and remains affixed throughout the crash test.

S7. Test conditions. The requirement of S5. shall be met under the following conditions:

S7.1 The protected zone template is affixed to the windshield in the manner described in S6.

S7.2 The hood, hood latches, and any other hood retention components are engaged prior to the barrier crash.

S7.3 Adjustable cowl tops or other adjustable panels in front of the windshield are in the position used under normal operating conditions when windshield wiping systems are not in use.

S7.4 The parking brake is disengaged and the transmission is in neutral.

S7.5 Tires are inflated to the vehicle manufacturer's specifications.

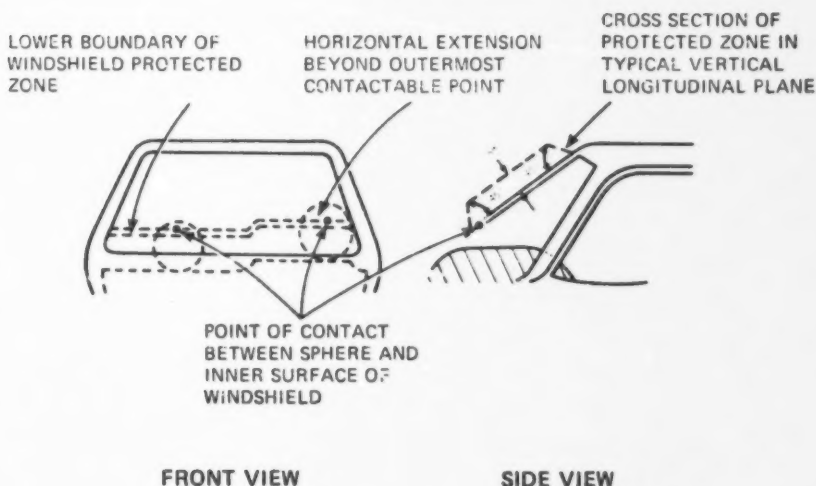
S7.6 The fuel tank is filled to any level from 90 to 95 per cent of capacity.

S7.7 The vehicle, including test devices and instrumentation, is loaded as follows:

(a) Except as specified in S7.6, a passenger car is loaded to its unloaded vehicle weight plus its rated cargo and luggage capacity weight, secured in the luggage area, plus a 50th-percentile test dummy as specified in Part 572 of this chapter at each front outboard designated seating position and at any other position whose protection system is required to be tested by a dummy under the provisions of Standard No. 208. Each dummy is restrained only by means that are installed for protection at its seating position.

(b) Except as specified in S7.6, a multipurpose passenger vehicle, truck or bus is loaded to its unloaded vehicle weight, plus 300 pounds or its rated

cargo and luggage capacity, whichever is less, secured to the vehicle, plus a 50th-percentile test dummy as specified in Part 572 of this chapter at each front outboard designated seating position and at any other position whose protection system is required to be tested by a dummy under the provisions of Standard No. 208. Each dummy is restrained only by means that are installed for protection at its seating position. The load is distributed so that the weight on each axle as measured at the tire-ground interface is in proportion to its GAWR. If the weight on any axle when the vehicle is loaded to its unloaded vehicle weight plus dummy weight exceeds the axle's proportional share of the test weight, the remaining weight is placed so that the weight on that axle remains the same. For the purposes of this section, unloaded vehicle weight does not include the weight of work-performing accessories. Vehicles are tested to a maximum unloaded vehicle weight of 5,500 pounds.



WINDSHIELD PROTECTED ZONE

Figure 1

[40 FR 25462, June 16, 1975, as amended at 40 FR 53033, Nov. 14, 1975; 41 FR 54946, Dec. 16, 1976; 45 FR 22046, Apr. 3, 1980]

§ 571.220 Standard No. 220: School bus rollover protection.

S1. Scope. This standard establishes performance requirements for school bus rollover protection.

S2. Purpose. The purpose of this standard is to reduce the number of deaths and the severity of injuries that result from failure of the school bus body structure to withstand forces encountered in rollover crashes.

S3. Applicability. This standard applies to school buses.

S4. Requirements. When a force equal to $1\frac{1}{2}$ times the unloaded vehicle weight is applied to the roof of the vehicle's body structure through a force application plate as specified in S5., Test procedures—

(a) The downward vertical movement at any point on the application plate shall not exceed $\frac{5}{8}$ inches; and

(b) Each emergency exit of the vehicle provided in accordance with Standard No. 217 (§ 571.217) shall be capable of opening as specified in that standard during the full application of the force and after release of the force, except that an emergency exit located in the roof of the vehicle is not required to be capable of being opened during the application of the force. A particular vehicle (i.e., test specimen) need not meet the emergency exit opening requirement after release of force if it is subjected to the emergency exit opening requirements during the full application of the force.

S5. Test procedures. Each vehicle shall be capable of meeting the requirements of S4. when tested in accordance with the procedures set forth below.

S5.1 With any non-rigid chassis-to-body mounts replaced with equivalent rigid mounts, place the vehicle on a rigid horizontal surface so that the vehicle is entirely supported by means of the vehicle frame. If the vehicle is constructed without a frame, place the vehicle on its body sills. Remove any components which extend upward from the vehicle roof.

S5.2 Use a flat, rigid, rectangular force application plate that is measured with respect to the vehicle roof longitudinal and lateral centerlines.

(a) In the case of a vehicle with a GVWR of more than 10,000 pounds, 12

inches shorter than the vehicle roof and 36 inches wide; and

(b) In the case of a vehicle with a GVWR of 10,000 pounds or less, 5 inches longer and 5 inches wider than the vehicle roof. For purposes of these measurements, the vehicle roof is that structure, seen in the top projected view, that coincides with the passenger and driver compartment of the vehicle.

S5.3 Position the force application plate on the vehicle roof so that its rigid surface is perpendicular to a vertical longitudinal plane and it contacts the roof at not less than two points, and so that, in the top projected view, its longitudinal centerline coincides with the longitudinal centerline of the vehicle, and its front and rear edges are an equal distance inside the front and rear edges of the vehicle roof at the centerline.

S5.4 Apply an evenly-distributed vertical force in the downward direction to the force application plate at any rate not more than 0.5 inch per second, until a force of 500 pounds has been applied.

S5.5 Apply additional vertical force in the downward direction to the force application plate at a rate of not more than 0.5 inch per second until the force specified in S4. has been applied, and maintain this application of force.

S5.6 Measure the downward movement of any point on the force application plate which occurred during the application of force in accordance with S5.5.

S5.7 To test the capability of the vehicle's emergency exits to open in accordance with S4.(b)—

(a) In the case of testing under the full application of force, open the emergency exits as specified in S4.(b) while maintaining the force applied in accordance with S5.4 and S5.5; and

(b) In the case of testing after the release of all force, release all downward force applied to the force application plate and open the emergency exits as specified in S4.(b).

S6. Test conditions. The following conditions apply to the requirements specified in S4.

S6.1 Temperature. The ambient temperature is any level between 32° F. and 90° F.

S6.2 Windows and doors. Vehicle windows, doors, and emergency exits are in the fully-closed position, and latched but not locked.

[41 FR 3875, Jan. 27, 1976, as amended at 41 FR 36026, 36027, Aug. 26, 1976]

§ 571.221 Standard No. 221: School bus body joint strength.

S1. Scope. This standard establishes requirements for the strength of the body panel joints in school bus bodies.

S2. Purpose. The purpose of this standard is to reduce deaths and injuries resulting from the structural collapse of school bus bodies during crashes.

S3. Application. This standard applies to school buses with gross vehicle weight ratings of more than 10,000 pounds.

S4. Definitions. "Body component" means a part of a bus body made from a single piece of homogeneous material or from a single piece of composite material such as plywood.

"Body panel" means a body component used on the exterior or interior surface to enclose the bus' occupant space.

"Body panel joint" means the area of contact or close proximity between the edges of a body panel and another body component, excluding spaces designed for ventilation or another functional purpose, and excluding doors, windows, and maintenance access panels.

"Bus body" means the portion of a bus that encloses the bus's occupant space, exclusive of the bumpers, the chassis frame, and any structure forward of the forwardmost point of the windshield mounting.

S5. Requirement. When tested in accordance with the procedure of S6., each body panel joint shall be capable of holding the body panel to the member to which it is joined when subjected to a force of 60% of the tensile strength of the weakest joined body panel determined pursuant to S6.2.

S6. Procedure.

S6.1 Preparation of the test specimen.

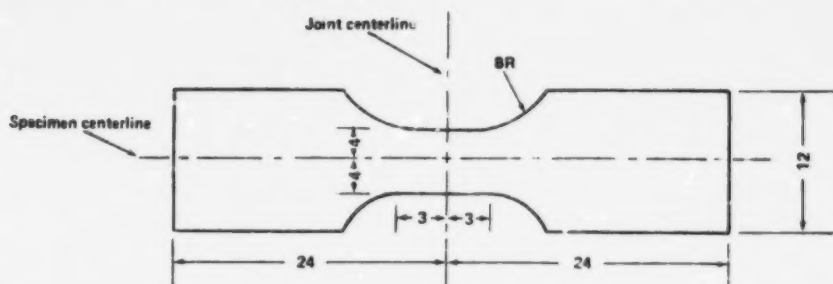
S6.1.1 If a body panel joint is 8 inches long or longer, cut a test specimen that consists of any randomly selected 8-inch segment of the joint, together with a portion of the bus body whose dimensions, to the extent permitted by the size of the joined parts, are those specified in Figure 1, so that the specimen's centerline is perpendicular to the joint at the midpoint of the joint segment. Where the body panel joint is not fastened continuously, select the segment so that it does not bisect a spot weld or a discrete fastener.

S6.1.2 If a joint is less than 8 inches long, cut a test specimen with enough of the adjacent material to permit it to be held in the tension testing machine specified in S6.3.

S6.1.3 Prepare the test specimen in accordance with the preparation procedures specified in the 1973 edition of the Annual Book of ASTM Standards, published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

S6.2 Determination of minimum allowable strength. For purposes of determining the minimum allowable joint strength, determine the tensile strengths of the joined body components as follows:

FIGURE 1



All dimensions in inches

(a) If the mechanical properties of a material are specified by the American Society for Testing and Materials, the relative tensile strength for such a material is the minimum tensile strength specified for that material in the 1973 edition of the Annual Book of ASTM Standards.

(b) If the mechanical properties of a material are not specified by the American Society for Testing and Materials, determine its tensile strength by cutting a specimen from the bus body outside the area of the joint and by testing it in accordance with S6.3.

S6.3 Strength test.

S6.3.1 Grip the joint specimen on opposite sides of the joint in a tension testing machine calibrated in accordance with Method E4, Verification of Testing Machines, of the American Society for Testing and Materials (1973 Annual Book of ASTM Standards).

S6.3.2 Adjust the testing machine grips so that the joint, under load, will be in stress approximately perpendicular to the joint.

S6.3.3 Apply a tensile force to the specimen by separating the heads of the testing machine at any uniform rate not less than $\frac{1}{8}$ inch and not more than $\frac{3}{8}$ inch per minute until the specimen separates.

[41 FR 3872, Jan. 27, 1976, as amended at 41 FR 36027, Aug. 26, 1976]

§ 571.222 Standard No. 222; School bus passenger seating and crash protection.

S1. *Scope.* This standard establishes occupant protection requirements for school bus passenger seating and restraining barriers.

S2. *Purpose.* The purpose of this standard is to reduce the number of deaths and the severity of injuries that result from the impact of school bus occupants against structures within the vehicle during crashes and sudden driving maneuvers.

S3. *Application.* This standard applies to school buses.

S4. *Definitions.* "Contactable surface" means any surface within the zone specified in S5.3.1.1 that is contactable from any direction by the test device described in S6.6, except any surface on the front of a seat back or restraining barrier 3 inches or more below the top of the seat back or restraining barrier.

"School bus passenger seat" means a seat in a school bus, other than the driver's seat or a seat installed to accommodate handicapped or convalescent passengers as evidenced by orientation of the seat in a direction that is more than 45 degrees to the left or right of the longitudinal centerline of the vehicle.

S4.1 The number of seating positions considered to be in a bench seat is expressed by the symbol W, and calculated as the bench width in inches

divided by 15 and rounded to the nearest whole number.

S5. Requirements. (a) Each vehicle with a gross vehicle weight rating of more than 10,000 pounds shall be capable of meeting any of the requirements set forth under this heading when tested under the conditions of S6. However, a particular school bus passenger seat (i.e., test specimen) in that weight class need not meet further requirements after having met S5.1.2 and S5.1.5, or having been subjected to either S5.1.3, S5.1.4, or S5.3.

(b) Each vehicle with a gross vehicle weight rating of 10,000 pounds or less shall be capable of meeting the following requirements at all seating positions other than the driver's seat: (1) The requirements of §§ 571.208, 571.209, and 571.210 (Standard Nos. 208, 209, and 210) as they apply to multipurpose passenger vehicles; and (2) the requirements of S5.1.2, S5.1.3, S5.1.4, S5.1.5, and S5.3 of this standard. However, the requirements of Standard Nos. 208 and 210 shall be met at W seating positions in a bench seat using a body block as specified in Figure 2 of this standard, and a particular school bus passenger seat (i.e., a test specimen) in that weight class need not meet further requirements after having met S5.1.2 and S5.1.5, or having been subjected to either S5.1.3, S5.1.4, S5.3, or § 571.210 (Standard No. 210).

S5.1 Seating requirements. School bus passenger seats shall be forward facing.

S5.1.1 [Reserved]

S5.1.2 Seat back height and surface area. Each school bus passenger seat shall be equipped with a seat back that, in the front projected view, has a front surface area above the horizontal plane that passes through the seating reference point, and below the horizontal plane 20 inches above the seating reference point, of not less than 90 percent of the sea bench width in inches multiplied by 20.

S5.1.3 Seat performance forward. When a school bus passenger seat that has another seat behind it is subjected to the application of force as specified in S5.1.3.1 and S5.1.3.2, and subsequently, the application of additional

force to the seat back as specified in S5.1.3.3 and S5.1.3.4:

(a) The seat back force/deflection curve shall fall within the zone specified in Figure 1;

(b) Seat back deflection shall not exceed 14 inches; (for determination of (a) and (b) the force/deflection curve describes only the force applied through the upper loading bar, and only the forward travel of the pivot attachment point of the upper loading bar, measured from the point at which the initial application of 10 pounds of force is attained.)

(c) The seat shall not deflect by an amount such that any part of the seat moves to within 4 inches of any part of another school bus passenger seat or restraining barrier in its originally installed position;

(d) The seat shall not separate from the vehicle at any attachment point; and

(e) Seat components shall not separate at any attachment point.

S5.1.3.1 Position the loading bar specified in S6.5 so that it is laterally centered behind the seat back with the bar's longitudinal axis in a transverse plane of the vehicle and in any horizontal plane between 4 inches above and 4 inches below the seating reference point of the school bus passenger seat behind the test specimen.

S5.1.3.2 Apply a force of 700W pounds horizontally in the forward direction through the loading bar at the pivot attachment point. Reach the specified load in not less than 5 nor more than 30 seconds.

S5.1.3.3 No sooner than 1.0 second after attaining the required force, reduce that force to 350W pounds and, while maintaining the pivot point position of the first loading bar at the position where the 350W pounds is attained, position a second loading bar described in S6.5 so that it is laterally centered behind the seat back with the bar's longitudinal axis in a transverse plane of the vehicle and in the horizontal plane 16 inches above the seating reference point of the school bus passenger seat behind the test specimen, and move the bar forward against the seat back until a force of 10 pounds has been applied.

S5.1.3.4 Apply additional force horizontally in the forward direction through the upper bar until 4,000W inch-pounds of energy have been absorbed in deflecting the seat back (or restraining barrier). Apply the additional load in not less than 5 seconds nor more than 30 seconds. Maintain the pivot attachment point in the maximum forward travel position for not less than 5 seconds nor more than 10 seconds and release the load in not less than 5 nor more than 30 seconds. (For the determination of S5.1.3.4 the force/deflection curve describes only the force applied through the upper loading bar, and the forward and rearward travel distance of the upper loading bar pivot attachment point measured from the position at which the initial application of 10 pounds of force is attained.)

S5.1.4 *Seat performance rearward.* When a school bus passenger seat that has another seat behind it is subjected to the application of force as specified in S5.1.4.1 and S5.1.4.2:

(a) Seat back force shall not exceed 2,200 pounds;

(b) In the case of a school bus manufactured on or after April 1, 1978, seat back deflection shall not exceed 10 inches; (For determination of (a) and (b) the force/deflection curve describes only the force applied through the loading bar, and only the rearward travel of the pivot attachment point of the loading bar, measured from the point at which the initial application of 50 pounds of force is attained.

(c) The seat shall not deflect by an amount such that any part of the seat moves to within 4 inches of any part of another passenger seat in its originally installed position;

(d) The seat shall not separate from the vehicle at any attachment point; and

(e) Seat components shall not separate at any attachment point.

S5.1.4.1 Position the loading bar described in S6.5 so that it is laterally centered forward of the seat back with the bar's longitudinal axis in a transverse plane of the vehicle and in the horizontal plane 13.5 inches above the seating reference point of the test specimen, and move the loading bar

rearward against the seat back until a force of 50 pounds has been applied.

S5.1.4.2 Apply additional force horizontally rearward through the loading bar until 2,800W inch-pounds of energy has been absorbed in deflecting the seat back. Apply the additional load in not less than 5 seconds nor more than 30 seconds. Maintain the pivot attachment point in the maximum rearward travel position for not less than 5 seconds nor more than 10 seconds and release the load in not less than 5 seconds nor more than 30 seconds. (For determination of S5.1.4.2 the force/deflection curve describes the force applied through the loading bar and the rearward and forward travel distance of the loading bar pivot attachment point measured from the position at which the initial application of 50 pounds of force is attained.)

S5.1.5 *Seat cushion retention.* In the case of school bus passenger seats equipped with seat cushions, with all manual attachment devices between the seat and the seat cushion in the manufacturer's designed position for attachment, the seat cushion shall not separate from the seat at any attachment point when subjected to an upward force of five times the seat cushion weight, applied in any period of not less than 1 nor more than 5 seconds, and maintained for 5 seconds.

S5.2 *Restraint barrier requirements.* Each vehicle shall be equipped with a restraining barrier forward of any designated seating position that does not have the rear surface of another school bus passenger seat within 24 inches of its seating reference point, measured along a horizontal longitudinal line through the seating reference point in the forward direction.

S5.2.1 *Barrier-seat separation.* The horizontal distance between the restraining barrier's rear surface and the seating reference point of the seat in front of which the barrier is required shall not be more than 24 inches measured along a horizontal longitudinal line through the seating reference point in the forward direction.

S5.2.2 *Barrier position and rear surface area.* The position and rear surface area of the restraining barrier shall be such that, in a front projected

view of the bus, each point of the barrier's perimeter coincides with or lies outside of the perimeter of the seat back of the seat for which it is required.

S5.2.3 Barrier performance forward. When force is applied to the restraining barrier in the same manner as specified in S5.1.3.1 through S5.1.3.4 for seating performance tests:

(a) The restraining barrier force/deflection curve shall fall within the zone specified in Figure 1;

(b) Restraining barrier deflection shall not exceed 14 inches; (For computation of (a) and (b) the force/deflection curve describes only the force applied through the upper loading bar, and only the forward travel of the pivot attachment point of the loading bar, measured from the point at which the initial application of 10 pounds of force is attained.)

(c) Restraining barrier deflection shall not interfere with normal door operation;

(d) The restraining barrier shall not separate from the vehicle at any attachment point; and

(e) Restraining barrier components shall not separate at any attachment point.

S5.3 Impact zone requirements.

S5.3.1 Head protection zone. Any contactable surface of the vehicle within any zone specified in S5.3.1.1 shall meet the requirements of S5.3.1.2 and S5.3.1.3. However, a surface area that has been contacted pursuant to an impact test need not meet further requirements contained in S5.3.

S5.3.1.1 The head protection zones in each vehicle are the spaces in front of each school bus passenger seat which are not occupied by bus sidewall, window, or door structure and which, in relation to that seat and its seating reference point, are enclosed by the following planes;

(a) Horizontal planes 12 inches and 40 inches above the seating reference point;

(b) A vertical longitudinal plane tangent to the inboard (aisle side) edge of the seat;

(c) A vertical longitudinal plane 3.25 inches inboard of the outboard edge of the seat, and

(d) Vertical transverse planes through and 30 inches forward of the reference point.

S5.3.1.2 Head form impact requirement. When any contactable surface of the vehicle within the zones specified in S5.3.1.1 is impacted from any direction at 22 feet per second by the head form described in S6.6, the axial acceleration at the center of gravity of the head form shall be such that the expression

$$\left[\frac{1}{(t_2 - t_1)} \int_{t_1}^{t_2} a dt \right]^{2.5} (t_2 - t_1)$$

shall not exceed 1,000 where a is the axial acceleration expressed as a multiple of g (the acceleration due to gravity), and t_1 and t_2 are any two points in time during the impact.

S5.3.1.3 Head form force distribution. When any contactable surface of the vehicle within the zones specified in S5.3.1.1 is impacted from any direction at 22 feet per second by the head form described in S6.6, the energy necessary to deflect the impacted material shall be not less than 40 inch-pounds before the force level on the head form exceeds 150 pounds. When any contactable surface within such zones is impacted by the head form from any direction at 5 feet per second, the contact area on the head form surface shall be not less than 3 square inches.

S5.3.2 Leg protection zone. Any part of the seat backs or restraining barriers in the vehicle within any zone specified in S5.3.2.1 shall meet the requirements of S5.3.2.2.

S5.3.2.1 The leg protection zones of each vehicle are those parts of the school bus passenger seat backs and restraining barriers bounded by horizontal planes 12 inches above and 4 inches below the seating reference point of the school bus passenger seat immediately behind the seat back or restraining barrier.

S5.3.2.2 When any point on the rear surface of that part of a seat back or restraining barrier within any zone specified in S5.3.2.1 is impacted from

any direction at 16 feet per second by the knee form specified in S6.7, the resisting force of the impacted material shall not exceed 600 pounds and the contact area on the knee form surface shall not be less than 3 square inches.

S6. Test conditions. The following conditions apply to the requirements specified in S5.

S6.1 Test surface. The bus is at rest on a level surface.

S6.2 Tires. Tires are inflated to the pressure specified by the manufacturer for the gross vehicle weight rating.

S6.3 Temperature. The ambient temperature is any level between 32 degrees F. and 90 degrees F.

S6.4 Seat back position. If adjustable, a seat back is adjusted to its most upright position.

S6.5 Loading bar. The loading bar is a rigid cylinder with an outside diameter of 6 inches that has hemispherical ends with radii of 3 inches and with a surface roughness that does not exceed 63 micro-inches, root mean square. The length of the loading bar is 4 inches less than the width of the seat back in each test. The stroking mechanism applies force through a pivot attachment at the centerpoint of the loading bar which allows the loading bar to rotate in a horizontal plane 30 degrees in either direction from the transverse position.

S6.5.1 A vertical or lateral force of 4,000 pounds applied externally through the pivot attachment point of the loading bar at any position reached during a test specified in this standard shall not deflect that point more than 1 inch.

S6.6 Head form. The head form for the measurement of acceleration is a rigid surface comprised of two hemispherical shapes, with total equivalent weight of 11.5 pounds. The first of the two hemispherical shapes has a diameter of 6.5 inches. The second of the two hemispherical shapes has a 2 inch diameter and is centered as shown in Figure 3 to protrude from the outer surface of the first hemispherical shape. The surface roughness of the hemispherical shapes does not exceed 63 micro-inches, root mean square.

S6.6.1 The direction of travel of the head form is coincidental with the straight line connecting the center-

points of the two spherical outer surfaces which constitute the head form shape.

S6.6.2 The head form is instrumented with an acceleration sensing device whose output is recorded in a data channel that conforms to the requirements for a 1,000 Hz channel class as specified in SAE Recommended Practice J211a, December 1971. The head form exhibits no resonant frequency below three times the frequency of the channel class. The axis of the acceleration sensing device coincides with the straight line connecting the centerpoints of the two hemispherical outer surfaces which constitute the head form shape.

S6.6.3 The head form is guided by a stroking device so that the direction of travel of the head form is not affected by impact with the surface being tested at the levels called for in the standard.

S6.7 Knee form. The knee form for measurement of force is a rigid 3-inch-diameter cylinder, with an equivalent weight of 10 pounds, that has one rigid hemispherical end with a 1½ inch radius forming the contact surface of the knee form. The hemispherical surface roughness does not exceed 63 micro-inches, root mean square.

S6.7.1 The direction of travel of the knee form is coincidental with the centerline of the rigid cylinder.

S6.7.2 The knee form is instrumented with an acceleration sensing device whose output is recorded in a data channel that conforms to the requirements of a 600 Hz channel class as specified in the SAE Recommended Practice J211a, December 1971. The knee form exhibits no resonant frequency below three times the frequency of the channel class. The axis of the acceleration sensing device is aligned to measure acceleration along the centerline of the cylindrical knee form.

S6.7.3 The knee form is guided by a stroking device so that the direction of travel of the knee form is not affected by impact with the surface being tested at the levels called for in the standard.

S6.8 The head form, knee form, and contactable surfaces are clean and dry during impact testing.

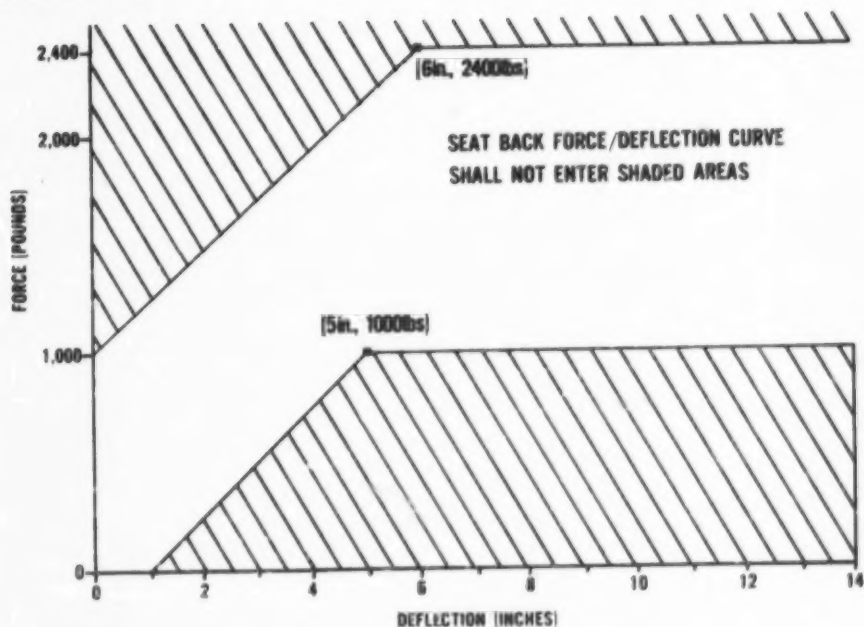


FIGURE 1 - FORCE/DEFLECTION ZONE

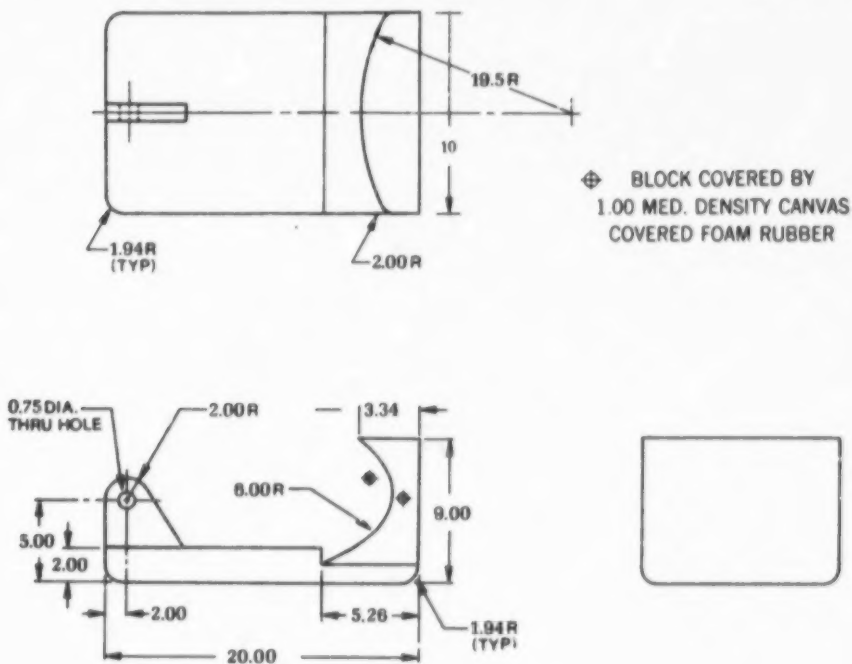


FIGURE 2 - BODY BLOCK FOR LAP BELT

BIHemispherical Head Form Radii

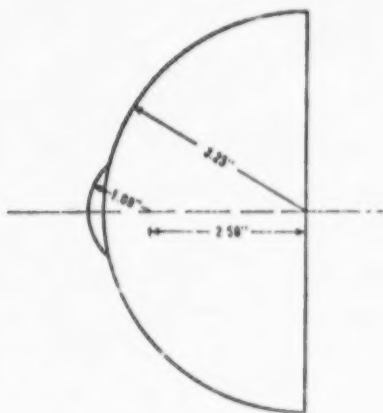


FIGURE 3

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); Sec. 203, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1392); delegation of authority at 49 CFR 1.50)

[41 FR 4018, Jan. 28, 1976, as amended at 41 FR 28528, July 12, 1976; 41 FR 36027, Aug. 26, 1976; 41 FR 54945, Dec. 16, 1976; 42 FR 64120, Dec. 22, 1977; 43 FR 9150, Mar. 6, 1978; 44 FR 18675, Mar. 29, 1979; 48 FR 12386, Mar. 24, 1983]

§ 571.301 Standard No. 301; Fuel system integrity.

S1. Scope. This standard specifies requirements for the integrity of motor vehicle fuel systems.

S2. Purpose. The purpose of this standard is to reduce deaths and injuries occurring from fires that result from fuel spillage during and after motor vehicle crashes.

S3. Application. This standard applies to passenger cars, and to multipurpose passenger vehicles, trucks, and buses that have a GVWR of 10,000 pounds or less and use fuel with a boiling point above 32° F, and to schoolbuses that have a GVWR greater than 10,000 pounds and use fuel with a boiling point about 32° F.

S4. Definition. "Fuel spillage" means the fall, flow, or run of fuel from the vehicle but does not include wetness resulting from capillary action.

S5. General requirements.

S5.1 Passenger cars. Each passenger car manufactured from September 1, 1975, to August 31, 1976, shall meet the requirements of S6.1 in a perpendicular impact only, and S6.4. Each passenger car manufactured on or after September 1, 1976, shall meet all the requirements of S6, except S6.5.

S5.2 Vehicles with GVWR of 6,000 pounds or less. Each multipurpose passenger vehicle, truck, and bus with a GVWR of 6,000 pounds or less manufactured from September 1, 1976, to August 31, 1977, shall meet all the requirements of S6.1 in a perpendicular impact only, S6.2, and S6.4. Each of these types of vehicles manufactured on or after September 1, 1977, shall meet all the requirements of S6., except S6.5.

S5.3 Vehicles with GVWR of more than 6,000 pounds but not more than 10,000 pounds. Each multipurpose passenger vehicle, truck, and bus with a GVWR of more than 6,000 pounds but not more than 10,000 pounds manufactured from September 1, 1976, to August 31, 1977, shall meet the requirements of S6.1 in a perpendicular impact only. Each vehicle manufactured on or after September 1, 1977, shall meet all the requirements of S6., except S6.5.

S5.4 Schoolbuses with a GVWR greater than 10,000 pounds. Each schoolbus with a GVWR greater than 10,000 pounds manufactured on or after April 1, 1977, shall meet the requirements of S6.5.

S5.5 Fuel spillage: Barrier crash. Fuel spillage in any fixed or moving barrier crash test shall not exceed 1 ounce by weight from impact until motion of the vehicle has ceased, and shall not exceed a total of 5 ounces by weight in the 5-minute period following cessation of motion. For the subsequent 25-minute period (for vehicles manufactured before September 1, 1976, other than school buses with a GVWR greater than 10,000 pounds; the subsequent 10-minute period), fuel

spillage during any 1-minute interval shall not exceed 1 ounce by weight.

S5.6 Fuel spillage: Rollover. Fuel spillage in any rollover test, from the onset of rotational motion, shall not exceed a total of 5 ounces by weight for the first 5 minutes of testing at each successive 90° increment. For the remaining testing period, at each increment of 90° fuel spillage during any 1-minute interval shall not exceed 1 ounce by weight.

S6. Test requirements. Each vehicle with a GVWR of 10,000 pounds or less shall be capable of meeting the requirements of any applicable barrier crash test followed by a static rollover, without alteration of the vehicle during the test sequence. A particular vehicle need not meet further requirements after having been subjected to a single barrier crash test and a static rollover test.

S6.1 Frontal barrier crash. When the vehicle traveling longitudinally forward at any speed up to and including 30 mph impacts a fixed collision barrier that is perpendicular to the line of travel of the vehicle, or at any angle up to 30° in either direction from the perpendicular to the line of travel of the vehicle, with 50th-percentile test dummies as specified in Part 572 of this chapter at each front outboard designated seating position and at any other position whose protection system is required to be tested by a dummy under the provisions of Standard No. 208, under the applicable conditions of S7., fuel spillage shall not exceed the limits of S5.5.

S6.2 Rear moving barrier crash. When the vehicle is impacted from the rear by a barrier moving at 30 mph, with test dummies as specified in Part 572 of this chapter at each front outboard designated seating position, under the applicable conditions of S7., fuel spillage shall not exceed the limits of S5.5.

S6.3 Lateral moving barrier crash. When the vehicle is impacted laterally on either side by a barrier moving at 20 mph with 50th percentile test dummies as specified in Part 572 of this chapter at positions required for testing to Standard No. 208, under the applicable conditions of S7., fuel spillage shall not exceed the limits of S5.5.

S6.4 Static rollover. When the vehicle is rotated on its longitudinal axis to each successive increment of 90°, following an impact crash of S6.1, S6.2, or S6.3, fuel spillage shall not exceed the limits of S5.6.

S6.5 Moving contoured barrier crash. When the moving contoured barrier assembly traveling longitudinally forward at any speed up to and including 30 mph impacts the test vehicle (schoolbus with a GVWR exceeding 10,000 pounds) at any point and angle, under the applicable conditions of S7.1 and S7.5, fuel spillage shall not exceed the limits of S5.5.

S7. Test conditions. The requirements of S5. and S6. shall be met under the following conditions. Where a range of conditions is specified, the vehicle must be capable of meeting the requirements at all points within the range.

S7.1 General test conditions. The following conditions apply to all tests.

S7.1.1 The fuel tank is filled to any level from 90 to 95 percent of capacity with Stoddard solvent, having the physical and chemical properties of type 1 solvent, Table I ASTM Standard D484-71, "Standard Specifications for Hydrocarbon Dry Cleaning Solvents."

S7.1.2 The fuel system other than the fuel tank is filled with Stoddard solvent to its normal operating level.

S7.1.3 In meeting the requirements of S6.1 through S6.3, if the vehicle has an electrically driven fuel pump that normally runs when the vehicle's electrical system is activated, it is operating at the time of the barrier crash.

S7.1.4 The parking brake is disengaged and the transmission is in neutral, except that in meeting the requirements of S6.5 the parking brake is set.

S7.1.5 Tires are inflated to manufacturer's specifications.

S7.1.6 The vehicle, including test devices and instrumentation, is loaded as follows:

(a) Except as specified in S7.1.1, a passenger car is loaded to its unloaded vehicle weight plus its rated cargo and luggage capacity weight, secured in the luggage area, plus the necessary test dummies as specified in S6., restrained only by means that are in-

stalled in the vehicle for protection at its seating position.

(b) Except as specified in S7.1.1, a multipurpose passenger vehicle, truck, or bus with a GVWR of 10,000 pounds or less is loaded to its unloaded vehicle weight, plus the necessary test dummies, as specified in S6., plus 300 pounds or its rated cargo and luggage capacity weight, whichever is less, secured to the vehicle and distributed so that the weight on each axle as measured at the tire-ground interface is in proportion to its GAWR. If the weight on any axle, when the vehicle is loaded to unloaded vehicle weight plus dummy weight, exceeds the axle's proportional share of the test weight, the remaining weight shall be placed so that the weight on that axle remains the same. Each dummy shall be restrained only by means that are installed in the vehicle for protection at its seating position.

(c) Except as specified in S7.1.1, a schoolbus with a GVWR greater than 10,000 pounds is loaded to its unloaded vehicle weight, plus 120 pounds of unsecured weight at each designated seating position.

S7.2 Lateral moving barrier crash test conditions. The lateral moving barrier crash test conditions are those specified in S8.2 of Standard No. 208, 49 CFR 571.208.

S7.3 Rear moving barrier test conditions. The rear moving barrier test conditions are those specified in S8.2 of Standard No. 208, 49 CFR 571.208, except for the positioning of the barrier and the vehicle. The barrier and test vehicle are positioned so that at impact—

(a) The vehicle is at rest in its normal attitude;

(b) The barrier is traveling at 30 mph with its face perpendicular to the longitudinal centerline of the vehicle; and

(c) A vertical plane through the geometric center of the barrier impact surface and perpendicular to that surface coincides with the longitudinal centerline of the vehicle.

S7.4 Static rollover test conditions. The vehicle is rotated about its longitudinal axis, with the axis kept horizontal, to each successive increment of 90°, 180°, and 270° at a uniform rate,

with 90° of rotation taking place in any time interval from 1 to 3 minutes. After reaching each 90° increment the vehicle is held in that position for 5 minutes.

S7.5 Moving contoured barrier test conditions. The following conditions apply to the moving contoured barrier crash test.

S7.5.1 The moving barrier, which is mounted on a carriage as specified in figure 1, is of rigid construction, symmetrical about a vertical longitudinal plane. The contoured impact surface, which is 24.75 inches high and 78 inches wide, conforms to the dimensions shown in figure 2, and is attached to the carriage as shown in that figure. The ground clearance to the lower edge of the impact surface is 5.25 ± 0.5 inches. The wheelbase is 120 ± 2 inches.

S7.5.2 The moving contoured barrier, including the impact surface, supporting structure, and carriage, weighs $4,000 \pm 50$ pounds with the weight distributed so that 900 ± 25 pounds is at each rear wheel and 1100 ± 25 pounds is at each front wheel. The center of gravity is located 54.0 ± 1.5 inches rearward of the front wheel axis, in the vertical longitudinal plane of symmetry, 15.8 inches above the ground. The moment of inertia about the center of gravity is:

$$I_x = 271 - 13.6 \text{ slug ft.}^2$$

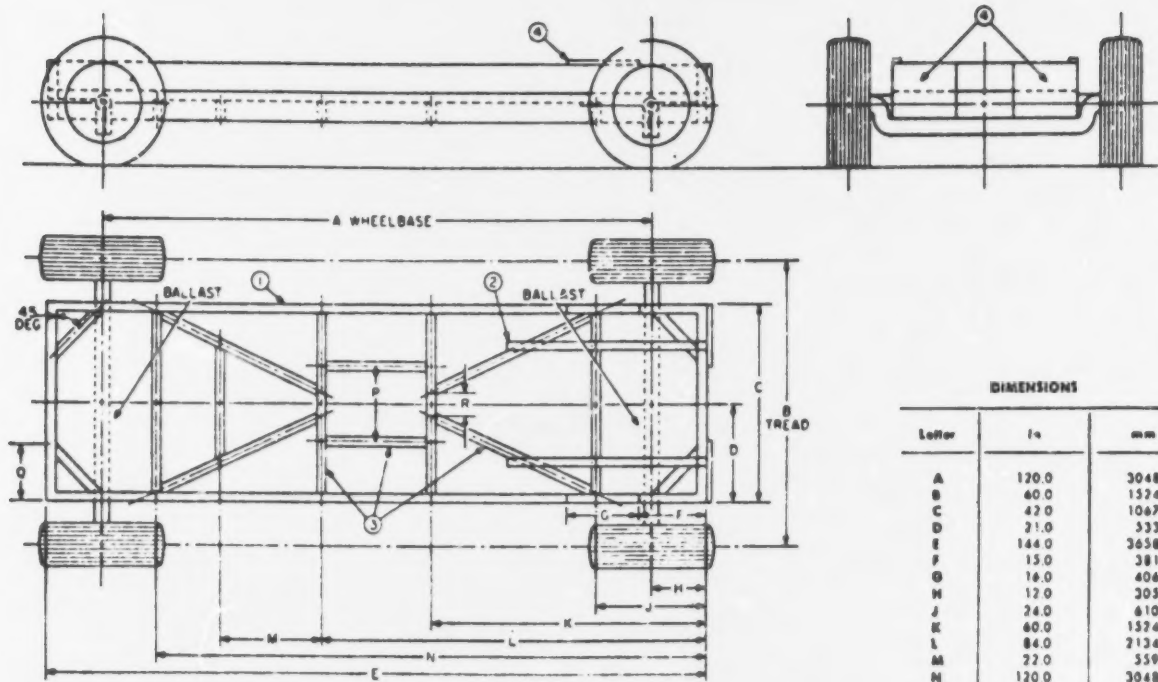
$$I_y = 3475 \pm 174 \text{ slug ft.}^2$$

S7.5.3 The moving contoured barrier has a solid nonsteerable front axle and fixed rear axle attached directly to the frame rails with no spring or other type of suspension system on any wheel. (The moving barrier assembly is equipped with a braking device capable of stopping its motion.)

S7.5.4 The moving barrier assembly is equipped with G78-15 pneumatic tires with a tread width of 6.6 ± 1 inch, inflated to 24 psi.

S7.5.5 The concrete surface upon which the vehicle is tested is level, rigid, and of uniform construction, with a skid number of 75 when measured in accordance with American Society of Testing and Materials Method E 274-65T at 40 mph, omitting water delivery as specified in paragraph 7.1 of that method.

S7.5.6 The barrier assembly is released from the guidance mechanism immediately prior to impact with the vehicle.



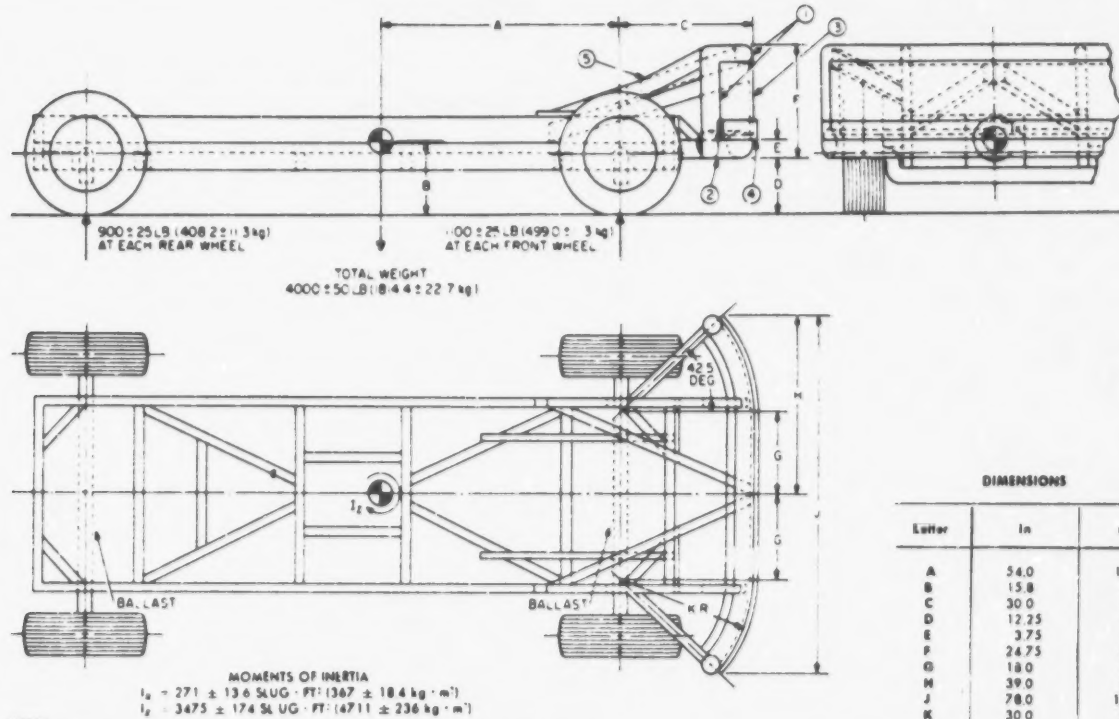
NOTES:

1. OUTER FRAME 60 X 20 X 0.19 IN (152 X 51 X 5 mm) STEEL TUBING, TWO PIECES WELDED TOGETHER FOR A 12.0 IN (305 mm) HEIGHT.
2. BALLAST TIE DOWNS.
3. ALL INNER REINFORCEMENTS AND FRAME GUSSETS OF 40 X 20 X 0.19 IN (102 X 51 X 5 mm) STEEL TUBING.
4. REINFORCED AREAS FOR BOLTING ON FACE PLATES.

DIMENSIONS

Letter	in	mm
A	120.0	3048
B	40.0	1524
C	42.0	1067
D	21.0	533
E	144.0	3658
F	15.0	381
G	16.0	406
H	12.0	305
J	24.0	610
K	60.0	1524
L	84.0	2134
M	22.0	559
N	120.0	3048
P	16.0	406
Q	12.0	305
R	6.0	152

FIG. 1—COMMON CARRIAGE FOR MOVING BARRIERS



DIMENSIONS

Letter	In	mm
A	54.0	1372
B	15.8	401
C	30.0	762
D	12.25	311
E	3.75	95
F	24.75	629
G	18.0	457
H	39.0	991
J	78.0	1981
K	30.0	762

FIG. 2—COMMON CARRIAGE WITH CONTOURED IMPACT SURFACE ATTACHED

1.51

NOTES

1. UPPER FRAME 4.0 IN DIA X 0.25 IN WALL (102 mm DIA X 6 mm WALL) STEEL TUBING (THREE SIDES).
2. LOWER FRAME 6.0 IN DIA X 0.50 IN WALL (152 mm DIA X 13 mm WALL) STEEL TUBING.
3. FACE PLATE 0.75 IN (19 mm) THICK COLD ROLLED STEEL.
4. LEADING EDGE 1.0 X 4.0 IN (25 X 102 mm) STEEL BAND, SHARP EDGES BROKEN.
5. ALL INNER REINFORCEMENTS 4.0 X 2.0 X 0.19 IN (102 X 51 X 5 mm) STEEL TUBING.

[40 FR 48353, Oct. 15, 1975. Redesignated and amended at 41 FR 9350, Mar. 4, 1976; 41 FR 36026, 36027, Aug. 26, 1976]

§ 571.302 Standard No. 302; Flammability of interior materials.

S1. Scope. This standard specifies burn resistance requirements for materials used in the occupant compartments of motor vehicles.

S2. Purpose. The purpose of this standard is to reduce the deaths and injuries to motor vehicle occupants caused by vehicle fires, especially those originating in the interior of the vehicle from sources such as matches or cigarettes.

S3. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses.

S3A. Definitions. "Occupant compartment air space" means the space within the occupant compartment that normally contains refreshable air.

S4. Requirements.

S4.1 The portions described in S4.2 of the following components of vehicle occupant compartments shall meet the requirements of S4.3: Seat cushions, seat backs, seat belts, headlining, convertible tops, arm rests, all trim panels including door, front, rear, and side panels, compartment shelves, head restraints, floor coverings, sun visors, curtains, shades, wheel housing covers, engine compartment covers, mattress covers, and any other interior materials, including padding and crash-deployed elements, that are designed to absorb energy on contact by occupants in the event of a crash.

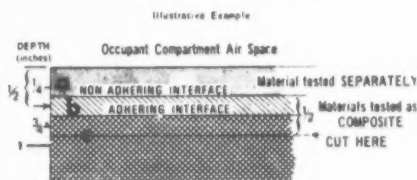
S4.1.1 [Reserved]

S4.2 Any portion of a single or composite material which is within $\frac{1}{2}$ inch of the occupant compartment air space shall meet the requirements of S4.3.

S4.2.1 Any material that does not adhere to other material(s) at every point of contact shall meet the requirements of S4.3 when tested separately.

S4.2.2 Any material that adheres to other material(s) at every point of contact shall meet the requirements of S4.3 when tested as a composite with the other material(s).

Illustrative Example



Material A has a non-adhering interface with material B and is tested separately. Part of material B is within $\frac{1}{2}$ inch of the occupant compartment air space, and materials B and C adhere at every point of contact; therefore B and C are tested as a composite. The cut is in material C as shown, to make a specimen $\frac{1}{2}$ inch thick.

S4.3(a) When tested in accordance with S5, material described in S4.1 and S4.2 shall not burn, nor transmit a flame front across its surface, at a rate of more than 4 inches per minute. However, the requirement concerning transmission of a flame front shall not apply to a surface created by the cutting of a test specimen for purposes of testing pursuant to S5.

(b) If a material stops burning before it has burned for 60 seconds from the start of timing, and has not burned more than 2 inches from the point where timing was started, it shall be considered to meet the burn-rate requirement of S4.3(a).

S5. Test procedure.

S5.1 Conditions.

S5.1.1 The test is conducted in a metal cabinet for protecting the test specimens from drafts. The interior of the cabinet is 15 inches long, 8 inches deep, and 14 inches high. It has a glass observation window in the front, a closable opening to permit insertion of the specimen holder, and a hole to accommodate tubing for a gas burner. For ventilation, it has a $\frac{1}{2}$ -inch clearance space around the top of the cabinet, ten $\frac{1}{4}$ -inch-diameter holes in the base of the cabinet, and legs to elevate the bottom of the cabinet by three-eighths of an inch, all located as shown in Figure 1.

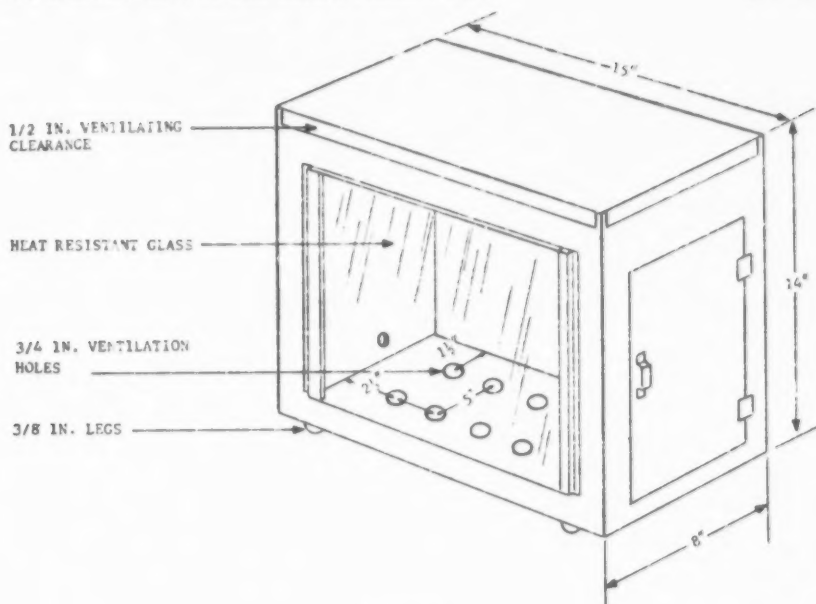


FIGURE 1

S5.1.2 Prior to testing, each specimen is conditioned for 24 hours at a temperature of 70° F. and a relative humidity of 50 percent, and the test is conducted under those ambient conditions.

S5.1.3 The test specimen is inserted between two matching U-shaped frames of metal stock 1-inch wide and $\frac{3}{8}$ of an inch high. The interior dimensions of the U-shaped frames are 2 inches wide by 13 inches long. A specimen that softens and bends at the flaming end so as to cause erratic burning is kept horizontal by supports consisting of thin, heat-resistant wires, spanning the width of the U-shaped frame under the specimen at 1-inch intervals. A device that may be used for supporting this type of material is an additional U-shaped frame, wider than the U-shaped frame containing the specimen, spanned by 10-mil wires of heat-resistant composition at 1-inch intervals, inserted over the bottom U-shaped frame.

S5.1.4 A bunsen burner with a tube of $\frac{3}{8}$ -inch inside diameter is used. The

gas adjusting valve is set to provide a flame, with the tube vertical, of 1½ inches in height. The air inlet to the burner is closed.

S5.1.5 The gas supplied to the burner has a flame temperature equivalent to that of natural gas.

S5.2 Preparation of specimens.

S5.2.1 Each specimen of material to be tested shall be a rectangle 4 inches wide by 14 inches long, wherever possible. The thickness of the specimen is that of the single or composite material used in the vehicle, except that if the material's thickness exceeds $\frac{1}{2}$ inch, the specimen is cut down to that thickness measured from the surface of the specimen closest to the occupant compartment air space. Where it is not possible to obtain a flat specimen because of surface curvature, the specimen is cut to not more than $\frac{1}{4}$ inch in thickness at any point. The maximum available length or width of a specimen is used where either dimension is less than 14 inches or 4 inches, respectively, unless surrogate testing is required under S4.1.1.

S5.2.2 The specimen is produced by cutting the material in the direction that provides the most adverse test results. The specimen is oriented so that the surface closest to the occupant compartment air space faces downward on the test frame.

S5.2.3 Material with a napped or tufted surface is placed on a flat surface and combed twice against the nap with a comb having seven to eight smooth, rounded teeth per inch.

S5.3 Procedure.

(a) Mount the specimen so that both sides and one end are held by the U-shaped frame, and one end is even with the open end of the frame. Where the maximum available width of a specimen is not more than 2 inches, so that the sides of the specimen cannot be held in the U-shaped frame, place the specimen in position on wire supports as described in S5.1.3, with one end held by the closed end of the U-shaped frame.

(b) Place the mounted specimen in a horizontal position, in the center of the cabinet.

(c) With the flame adjusted according to S5.1.4, position the bunsen burner and specimen so that the center of the burner tip is three-fourths of an inch below the center of the bottom edge of the open end of the specimen.

(d) Expose the specimen to the flame for 15 seconds.

(e) Begin timing (without reference to the period of application of the burner flame) when the flame from the burning specimen reaches a point 1½ inches from the open end of the specimen.

(f) Measure the time that it takes the flame to progress to a point 1½ inches from the clamped end of the specimen. If the flame does not reach the specified end point, time its progress to the point where flaming stops.

(g) Calculate the burn rate from the formula

$$B = 60 \cdot (D/T)$$

Where:

B = Burn rate in inches per minute.

D = Length the flame travels in inches, and

T = Time in seconds for the flame to travel *D* inches.

[36 FR 22902, Dec. 2, 1971, as amended at 40 FR 14319, Mar. 31, 1975; 40 FR 42747, Sept. 16, 1975; 40 FR 58667, Dec. 4, 1975]

PART 572—ANTHROPOMORPHIC TEST DUMMIES

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572.25 General description.

AUTHORITY: 15 U.S.C. 1392, 1407; delegation of authority at 49 CFR 1.50.

Subpart A—General

§ 572.1 Scope.

This part describes the anthropomorphic test dummies that are to be used for compliance testing of motor vehicles and motor vehicle equipment with motor vehicle safety standards.

[42 FR 7151, Feb. 7, 1977]

§ 572.2 Purpose.

The design and performance criteria specified in this part are intended to describe measuring tools with sufficient precision to give repetitive and correlative results under similar test conditions and to reflect adequately the protective performance of a vehi-

cle or item of motor vehicle equipment with respect to human occupants.

[38 FR 20451, Aug. 1, 1973, as amended at 42 FR 7151, Feb. 7, 1977]

§ 572.3 Application.

This part does not in itself impose duties or liabilities on any person. It is a description of tools that measure the performance of occupant protection systems required by the safety standards that incorporate it. It is designed to be referenced by, and become a part of, the test procedures specified in motor vehicle safety standards such as Standard No. 208, Occupant Crash Protection.

[38 FR 20451, Aug. 1, 1973, as amended at 42 FR 7152, Feb. 7, 1977]

§ 572.4 Terminology.

(a) The term "dummy," when used in this Subpart A, refers to any test device described by this part. The term "dummy," when used in any other subpart of this part, refers to the particular dummy described in that part.

(b) Terms describing parts of the dummy, such as "head," are the same as names for corresponding parts of the human body.

(c) The term "unimodal," when used in Subpart C, refers to an acceleration-time curve which has only one prominent peak.

[38 FR 20451, Aug. 1, 1973, as amended at 42 FR 7152, Feb. 7, 1977, 44 FR 76530, Dec. 27, 1979]

Subpart B—50th Percentile Male

§ 572.5 General description.

(a) The dummy consists of the component assemblies specified in Figure 1, which are described in their entirety by means of approximately 250 drawings and specifications that are grouped by component assemblies under the following nine headings:

- SA 150 M070—Right arm assembly
- SA 150 M071—Left arm assembly
- SA 150 M050—Lumbar spine assembly
- SA 150 M060—Pelvis and abdomen assembly
- SA 150 M080—Right leg assembly
- SA 150 M081—Left leg assembly
- SA 150 M010—Head assembly
- SA 150 M020—Neck assembly

SA 150 M030—Shoulder-thorax assembly.

(b) The drawings and specifications referred to in this regulation that are not set forth in full are hereby incorporated in this part by reference. These materials are thereby made part of this regulation. The Director of the Federal Register has approved the materials incorporated by reference. For materials subject to change, only the specific version approved by the Director of the Federal Register and specified in the regulation are incorporated. A notice of any change will be published in the FEDERAL REGISTER. As a convenience to the reader, the materials incorporated by reference are listed in the Finding Aid Table found at the end of this volume of the Code of Federal Regulations.

(c) The materials incorporated by reference are available for examination in Docket 73-08, Docket Section, National Highway Traffic Safety Administration, Room 5109, 400 Seventh Street SW., Washington, DC, 20590. Copies may be obtained from Rowley-Scher Reprographics, Inc., 1216 K Street NW., Washington, DC 20005 ((202) 628-6667). The drawings and specifications are also on file in the reference library of the Office of the Federal Register, National Archives and Records Administration, Washington, DC.

(d) Adjacent segments are joined in a manner such that throughout the range of motion and also under crash impact conditions there is no contact between metallic elements except for contacts that exist under static conditions.

(e) The structural properties of the dummy are such that the dummy conforms to this Part in every respect both before and after being used in vehicle tests specified in Standard No. 208 of this Chapter (571.208).

(f) A specimen of the dummy is available for surface measurements and access can be arranged by contacting: Office of Vehicle Safety Standards, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590.

[50 FR 25423, June 19, 1985]

§ 572.6 Head.

(a) The head consists of the assembly shown as number SA 150 M010 in Figure 1 and conforms to each of the drawings subtended by number SA 150 M010.

(b) When the head is dropped from a height of 10 inches in accordance with paragraph (c) of this section, the peak resultant accelerations at the location of the accelerometers mounted in the head form in accordance with § 572.11(b) shall be not less than 210g, and not more than 260g. The acceleration/time curve for the test shall be unimodal and shall lie at or above the 100g level for an interval not less than 0.9 milliseconds and not more than 1.5 milliseconds. The lateral acceleration vector shall not exceed 10g.

(c) Test procedure:

(1) Specimen the head as shown in Figure 2, so that the lowest point on the forehead is 0.5 inches below the lowest point on the dummy's nose when the midsagittal plane is vertical.

(2) Drop the head from the specified height by means that ensures instant release onto a rigidly supported flat horizontal steel plate, 2 inches thick and 2 feet square, which has a clean, dry surface and any microfinish of not less than 8 microinches (rms) and not more than 80 microinches (rms).

(3) Allow a time period of at least 2 hours between successive tests on the same head.

(38 FR 20451, Aug. 1, 1973, as amended at 42 FR 7152, Feb. 7, 1977)

§ 572.7 Neck.

(a) The neck consists of the assembly shown as number SA 150 M020 in Figure 1 and conforms to each of the drawings subtended by number SA 150 M020.

(b) When the neck is tested with the head in accordance with paragraph (c) of this section, the head shall rotate in reference to the pendulum's longitudinal centerline a total of $68 \pm 5^\circ$ about its center of gravity, rotating to the extent specified in the following table at each indicated point in time, measured from impact, with a chordal displacement measured at its center of gravity that is within the limits specified. The chordal displacement at time

T is defined as the straight line distance between (1) the position relative to the pendulum arm of the head center of gravity at time zero, and (2) the position relative to the pendulum arm of the head center of gravity at time T as illustrated by Figure 3. The peak resultant acceleration recorded at the location of the accelerometers mounted in the head form in accordance with § 572.11(b) shall not exceed 26g. The pendulum shall not reverse direction until the head's center of gravity returns to the original zero time position relative to the pendulum arm.

Rotation (degrees)	Time (ms) $\pm$ (2 + 0.6T)	Chordal Displacement (inches $\pm$ 0.5)
0	0	0.0
30	30	2.6
60	46	4.8
Maximum	60	5.5
60	75	4.8
30	95	2.6
0	112	0.0

(c) Test procedure:

(1) Mount the head and neck on a rigid pendulum as specified in Figure 4, so that the head's midsagittal plane is vertical and coincides with the plane of motion of the pendulum's longitudinal centerline. Mount the neck directly to the pendulum as shown in Figure 4.

(2) Release the pendulum and allow it to fall freely from a height such that the velocity at impact is 23.5 ± 2.0 feet per second (fps), measured at the center of the accelerometer specified in Figure 4.

(3) Decelerate the pendulum to a stop with an acceleration-time pulse described as follows:

(i) Establish 5g and 20g levels on the a-t curve.

(ii) Establish t_1 at the point where the rising a-t curve first crosses the 5g level, t_2 at the point where the rising a-t curve first crosses the 20g level, t_3 at the point where the decaying a-t curve last crosses the 20g level, and t_4 at the point where the decaying a-t curve first crosses the 5g level.

(iii) $t_3 - t_1$ shall be not more than 3 milliseconds.

(iv) $t_2 - t_1$ shall be not less than 25 milliseconds and not more than 30 milliseconds.

(v) $t_2 - t_1$ shall be not more than 10 milliseconds.

(vi) The average deceleration between t_1 and t_2 shall be not less than 20g and not more than 24g.

(4) Allow the neck to flex without impact of the head or neck with any object other than the pendulum arm.

[38 FR 20451, Aug. 1, 1973, as amended at 42 FR 7152, Feb. 7, 1977; 42 FR 12176, Mar. 3, 1977; 45 FR 40596, June 16, 1980]

§ 572.8 Thorax.

(a) The thorax consists of the assembly shown as number SA 150 M030 in Figure 1, and conforms to each of the drawings subtended by number SA 150 M030.

(b) The thorax contains enough unobstructed interior space behind the rib cage to permit the midpoint of the sternum to be depressed 2 inches without contact between the rib cage and other parts of the dummy or its instrumentation, except for instruments specified in paragraph (d)(7) of this section.

(c) When impacted by a test probe conforming to § 572.11(a) at 14 fps and at 22 fps in accordance with paragraph (d) of this section, the thorax shall resist with forces measured by the test probe of not more than 1450 pounds and 2250 pounds, respectively, and shall deflect by amounts not greater than 1.1 inches and 1.7 inches, respectively. The internal hysteresis in each impact shall not be less than 50 percent and not more than 70 percent.

(d) Test procedure:

(1) With the dummy seated without back support on a surface as specified in § 572.11(i) and in the orientation specified in § 572.11(i), adjust the dummy arms and legs until they are extended horizontally forward parallel to the midsagittal plane.

(2) Place the longitudinal center line of the test probe so that it is 17.7 ± 0.1 inches above the seating surface at impact.

(3) Align the test probe specified in § 572.11(a) so that at impact its longitudinal centerline coincides within 2 degrees of a horizontal line in the dummy's midsagittal plane.

(4) Adjust the dummy so that the surface area on the thorax immediately adjacent to the projected longitudinal center line of the test probe is vertical. Limb support, as needed to achieve and maintain this orientation, may be provided by placement of a steel rod of any diameter not less than one-quarter of an inch and not more than three-eighths of an inch, with hemispherical ends, vertically under the limb at its projected geometric center.

(5) Impact the thorax with the test probe so that its longitudinal centerline falls within 2 degrees of a horizontal line in the dummy's midsagittal plane at the moment of impact.

(6) Guide the probe during impact so that it moves with no significant lateral, vertical, or rotational movement.

(7) Measure the horizontal deflection of the sternum relative to the thoracic spine along the line established by the longitudinal centerline of the probe at the moment of impact, using a potentiometer mounted inside the sternum.

(8) Measure hysteresis by determining the ratio of the area between the loading and unloading portions of the force deflection curve to the area under the loading portion of the curve.

[38 FR 20451, Aug. 1, 1973, as amended at 42 FR 7152, Feb. 7, 1977]

§ 572.9 Lumbar spine, abdomen, and pelvis.

(a) The lumbar spine, abdomen, and pelvis consist of the assemblies designated as numbers SA 150 M050 and SA 150 M060 in Figure 1 and conform to the drawings subtended by these numbers.

(b) When subjected to continuously applied force in accordance with paragraph (c) of this section, the lumbar spine assembly shall flex by an amount that permits the rigid thoracic spine to rotate from its initial position in accordance with Figure 11 by the number of degrees shown below at each specified force level, and straighten upon removal of the force to within 12 degrees of its initial position in accordance with Figure 11.

Flexion (degrees)	Force (± 6 pounds)
0	0
20	28
30	40
40	52

(c) Test procedure:

(1) Assemble the thorax, lumbar spine, pelvic, and upper leg assemblies (above the femur force transducers), ensuring that all component surfaces are clean, dry, and untreated unless otherwise specified, and attach them to the horizontal fixture shown in Figure 5 at the two link rod pins and with the mounting brackets for the lumbar test fixtures illustrated in Figures 6 to 9.

(2) Attach the rear mounting of the pelvis to the pelvic instrument cavity rear face at the four $\frac{1}{4}$ " cap screw holes and attach the front mounting at the femur axial rotation joint. Tighten the mountings so that the pelvic-lumbar adapter is horizontal and adjust the femur friction plungers at each hip socket joint to 240 inch-pounds torque.

(3) Flex the thorax forward 50° and then rearward as necessary to return it to its initial position in accordance with Figure 11 unsupported by external means.

(4) Apply a forward force perpendicular to the thorax instrument cavity rear face in the midsagittal plane 15 inches above the top surface of the pelvic-lumbar adapter. Apply the force at any torso deflection rate between .5 and 1.5 degrees per second up to 40° of flexion but no further, continue to apply for 10 seconds that force necessary to maintain 40° of flexion, and record the force with an instrument mounted to the thorax as shown in Figure 5. Release all force as rapidly as possible and measure the return angle 3 minutes after the release.

(d) When the abdomen is subjected to continuously applied force in accordance with paragraph (e) of this section, the abdominal force-deflection curve shall be within the two curves plotted in Figure 10.

(e) Test procedure:

(1) Place the assembled thorax, lumbar spine and pelvic assemblies in a supine position on a flat, rigid,

smooth, dry, clean horizontal surface, ensuring that all component surfaces are clean, dry, and untreated unless otherwise specified.

(2) Place a rigid cylinder 6 inches in diameter and 18 inches long transversely across the abdomen, so that the cylinder is symmetrical about the midsagittal plane, with its longitudinal centerline horizontal and perpendicular to the midsagittal plane at a point 9.2 inches above the bottom line of the buttocks, measured with the dummy positioned in accordance with Figure 11.

(3) Establish the zero deflection point as the point at which a force of 10 pounds has been reached.

(4) Apply a vertical downward force through the cylinder at any rate between 0.25 and 0.35 inches per second.

(5) Guide the cylinder so that it moves without significant lateral or rotational movement.

[42 FR 7152, Feb. 7, 1977]

§ 572.10 Limbs.

(a) The limbs consist of the assemblies shown as numbers SA 150 M070, SA 150 M071, SA 150 M080, and SA 150 M081 in Figure 1 and conform to the drawings subtended by these numbers.

(b) When each knee is impacted at 6.9 ft/sec. in accordance with paragraph (c) of this section, the maximum force on the femur shall be not more than 2500 pounds and not less than 1850 pounds, with a duration above 1000 pounds of not less than 1.7 milliseconds.

(c) Test procedure:

(1) Seat the dummy without back support on a surface as specified in § 572.11(i) that is 17.3 ± 0.2 inches above a horizontal surface, oriented as specified in § 572.11(i), and with the hip joint adjustment at any setting between 1g and 2g. Place the dummy legs in planes parallel to its midsagittal plane (knee pivot centerline perpendicular to the midsagittal plane) and with the feet flat on the horizontal surface. Adjust the feet and lower legs until the lines between the mid-points of the knee pivots and the ankle pivots are at any angle not less than 2 degrees and not more than 4

degrees rear of the vertical, measured at the centerline of the knee pivots.

(2) Reposition the dummy if necessary so that the rearmost point of the lower legs at the level one inch below the seating surface remains at any distance not less than 5 inches and not more than 6 inches forward of the forward edge of the seat.

(3) Align the test probe specified in § 572.11(a) so that at impact its longitudinal centerline coincides within $\pm 2^\circ$ with the longitudinal centerline of the femur.

(4) Impact the knee with the test probe moving horizontally and parallel to the midsagittal plane at the specified velocity.

(5) Guide the probe during impact so that it moves with no significant lateral, vertical, or rotational movement.

[36 FR 20451, Aug. 1, 1973, as amended at 42 FR 7153, Feb. 7, 1977]

§ 572.11 Test conditions and instrumentation.

(a) The test probe used for thoracic and knee impact tests is a cylinder 6 inches in diameter that weighs 51.5 pounds including instrumentation. Its impacting end has a flat right face that is rigid and that has an edge radius of 0.5 inches.

(b) Accelerometers are mounted in the head on the horizontal transverse bulkhead shown in the drawings sub-referenced under assembly No. SA 150 M010 in Figure 1, so that their sensitive axes intersect at a point in the midsagittal plane 0.5 inches above the horizontal bulkhead and 1.9 inches ventral of the vertical mating surface of the skull with the skull cover. One accelerometer is aligned with its sensitive axis perpendicular to the horizontal bulkhead in the midsagittal plane and with its seismic mass center at any distance up to 0.3 inches superior to the axial intersection point. Another accelerometer is aligned with its sensitive axis parallel to the horizontal bulkhead and perpendicular to the midsagittal plane, and with its seismic mass center at any distance up to 1.3 inches to the left of the axial intersection point (left side of dummy is the same as that of man). A third accelerometer is aligned with its sensitive axis parallel to the horizontal bulk-

head in the midsagittal plane, and with its seismic mass center at any distance up to 1.3 inches dorsal to the axial intersection point.

(c) Accelerometers are mounted in the thorax by means of a bracket attached to the rear vertical surface (hereafter "attachment surface") of the thoracic spine so that their sensitive axes intersect at a point in the midsagittal plane 0.8 inches below the upper surface of the plate to which the neck mounting bracket is attached and 3.2 inches perpendicularly forward of the surface to which the accelerometer bracket is attached. One accelerometer has its sensitive axis oriented parallel to the attachment surface in the midsagittal plane, with its seismic mass center at any distance up to 1.3 inches inferior to the intersection of the sensitive axes specified above. Another accelerometer has its sensitive axis oriented parallel to the attachment surface and perpendicular to the midsagittal plane, with its seismic mass center at any distance up to 0.2 inches to the right of the intersection of the sensitive axes specified above. A third accelerometer has its sensitive axis oriented perpendicular to the attachment surface in the midsagittal plane, with its seismic mass center at any distance up to 1.3 inches dorsal to the intersection of the sensitive axes specified above. Accelerometers are oriented with the dummy in the position specified in § 572.11(i).

(d) A force-sensing device is mounted axially in each femur shaft so that the transverse centerline of the sensing element is 4.25 inches from the knee's center of rotation.

(e) The outputs of acceleration and force-sensing devices installed in the dummy and in the test apparatus specified by this Part are recorded in individual data channels that conform to the requirements of SAE Recommended Practice J211a, December 1971, with channel classes as follows:

- (1) Head acceleration—Class 1000.
- (2) Pendulum acceleration—Class 60.
- (3) Thorax acceleration—Class 180.
- (4) Thorax compression—Class 180.
- (5) Femur force—Class 600.

(f) The mountings for sensing devices have no resonance frequency

within a range of 3 times the frequency range of the applicable channel class.

(g) Limb joints are set at 1g, barely restraining the weight of the limb when it is extended horizontally. The force required to move a limb segment does not exceed 2g throughout the range of limb motion.

(h) Performance tests are conducted at any temperature from 66°F to 78°F and at any relative humidity from 10 percent to 70 percent after exposure of the dummy to these conditions for a period of not less than 4 hours.

(i) For the performance tests specified in §§ 572.8, 572.9, and 572.10, the dummy is positioned in accordance with Figure 11 as follows:

(1) The dummy is placed on a flat, rigid, smooth, clean, dry, horizontal, steel test surface whose length and width dimensions are not less than 16 inches, so that the dummy's midsagittal plane is vertical and centered on the test surface and the rearmost points on its lower legs at the level of the test surface are at any distance not less than 5 inches and not more than 6 inches forward of the forward edge of the test surface.

(2) The pelvis is adjusted so that the upper surface of the lumbar-pelvic adapter is horizontal.

(3) The shoulder yokes are adjusted so that they are at the midpoint of their anterior-posterior travel with their upper surfaces horizontal.

(4) The dummy is adjusted so that the rear surfaces of the shoulders and buttocks are tangent to a transverse vertical plane.

(5) The upper legs are positioned symmetrically about the midsagittal plane so that the distance between the knee pivot bolt heads is 11.6 inches.

(6) The lower legs are positioned in planes parallel to the midsagittal plane so that the lines between the midpoint of the knee pivots and the ankle pivots are vertical.

(j) The dummy's dimensions, as specified in drawing number SA 150 M002, are determined as follows:

(1) With the dummy seated as specified in paragraph (i) of this section,

the head is adjusted and secured so that its occiput is 1.7 inches forward of the transverse vertical plane with the vertical mating surface of the skull with its cover parallel to the transverse vertical plane.

(2) The thorax is adjusted and secured so that the rear surface of the chest accelerometer mounting cavity is inclined 3° forward of vertical.

(3) Chest and waist circumference and chest depth measurements are taken with the dummy positioned in accordance with paragraphs (j) (1) and (2) of this section.

(4) The chest skin and abdominal sac are removed and all following measurements are made without them.

(5) Seated height is measured from the seating surface to the uppermost point on the head-skin surface.

(6) Shoulder pivot height is measured from the seating surface to the center of the arm elevation pivot.

(7) H-point locations are measured from the seating surface to the center of the holes in the pelvis flesh covering in line with the hip motion ball.

(8) Knee pivot distance from the backline is measured to the center of the knee pivot bolt head.

(9) Knee pivot distance from floor is measured from the center of the knee pivot bolt head to the bottom of the heel when the foot is horizontal and pointing forward.

(10) Shoulder width measurement is taken at arm elevation pivot center height with the centerlines between the elbow pivots and the shoulder pivots vertical.

(11) Hip width measurement is taken at widest point of pelvic section.

(k) Performance tests of the same component, segment, assembly, or fully assembled dummy are separated in time by a period of not less than 30 minutes unless otherwise noted.

(l) Surfaces of dummy components are not painted except as specified in this part or in drawings subtended by this part.

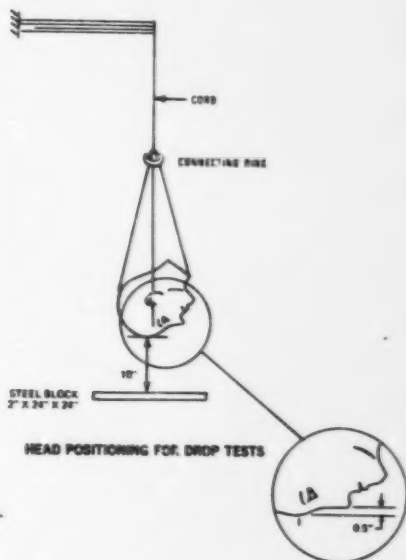
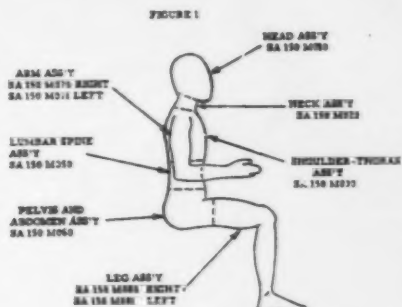


Figure 2

FIGURE NO. 5
LUMBAR FLEXION TEST

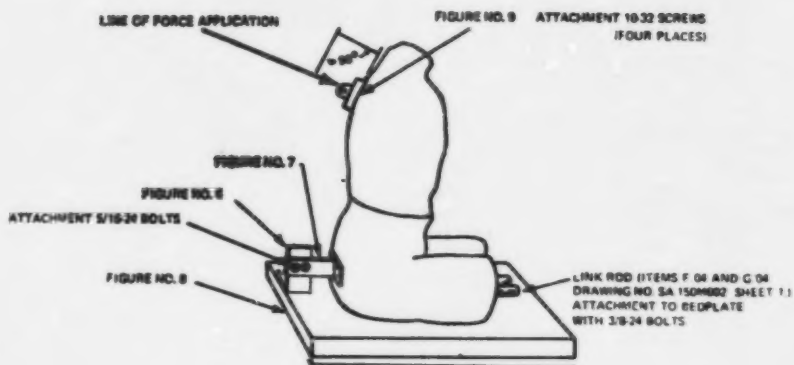
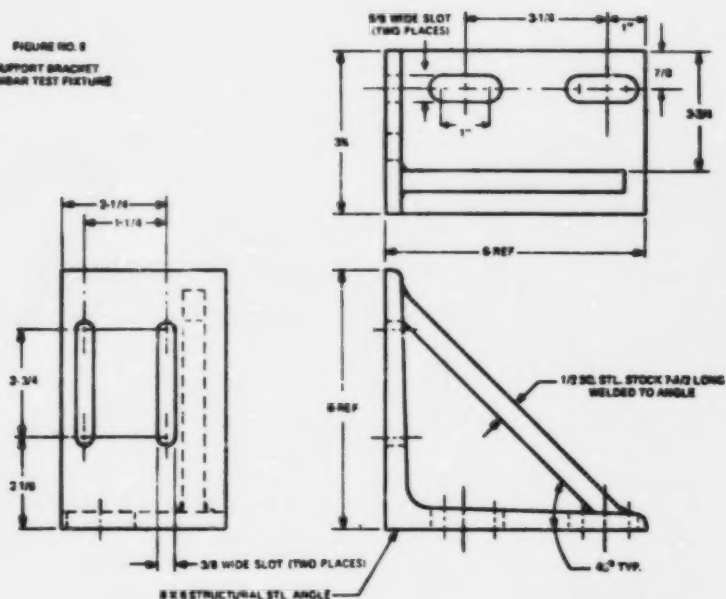


FIGURE NO. 8
SUPPORT BRACKET
LUMBAR TEST FIXTURE



TOLERANCES ± .005"

FIGURE NO. 7

MOUNTING BRACKET-LUMBAR TEST FIXTURE

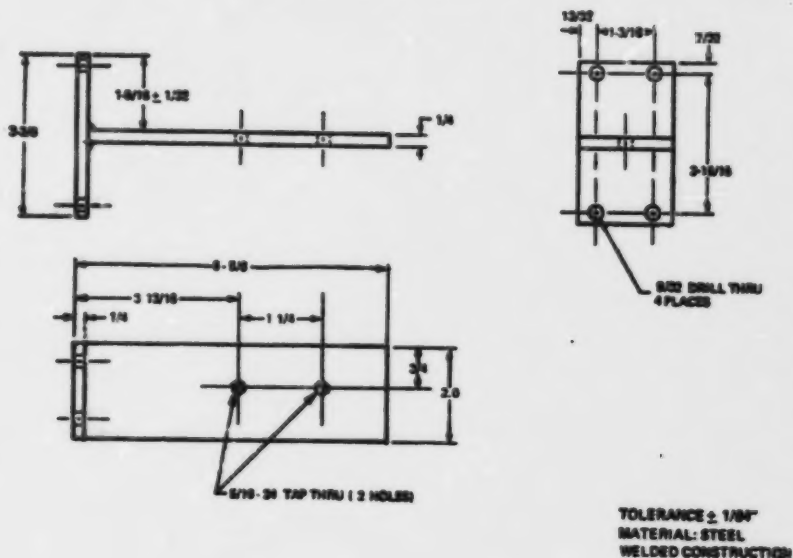
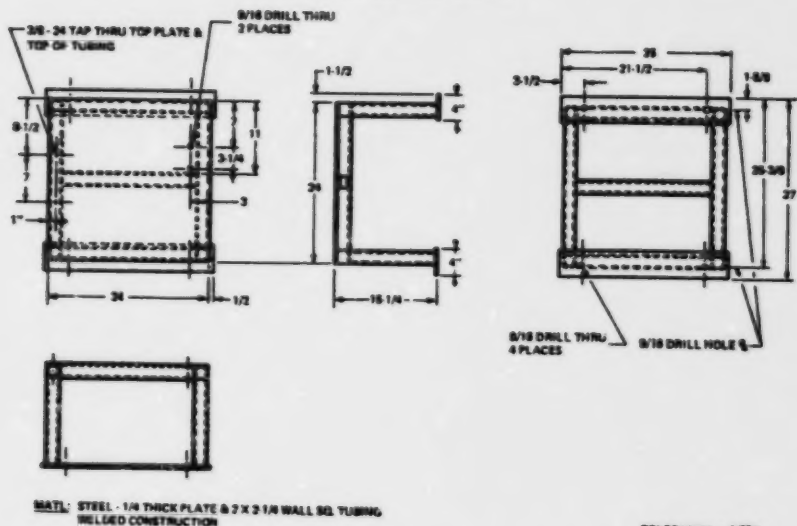
FIGURE NO. 8
BEDPLATE - LUMBAR TEST FIXTURE

FIGURE 9
Loading Plate- Lumber Test Fixture

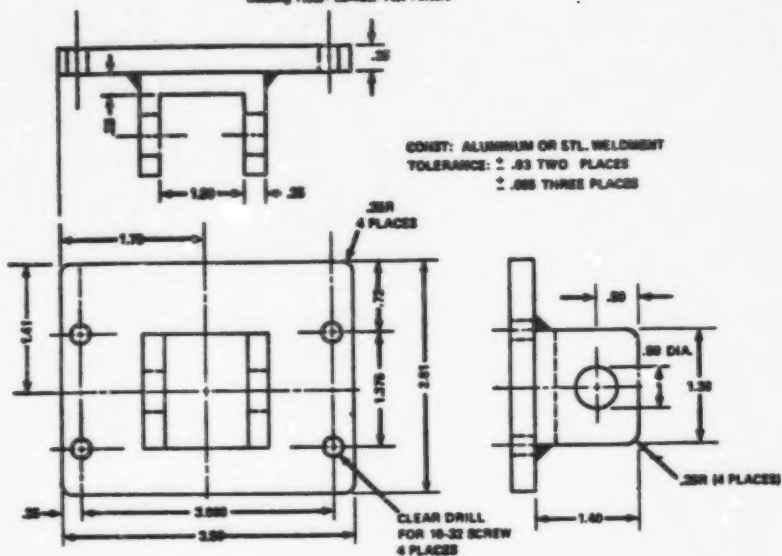


FIGURE NO. 10
ABDOMEN COMPONENT TEST

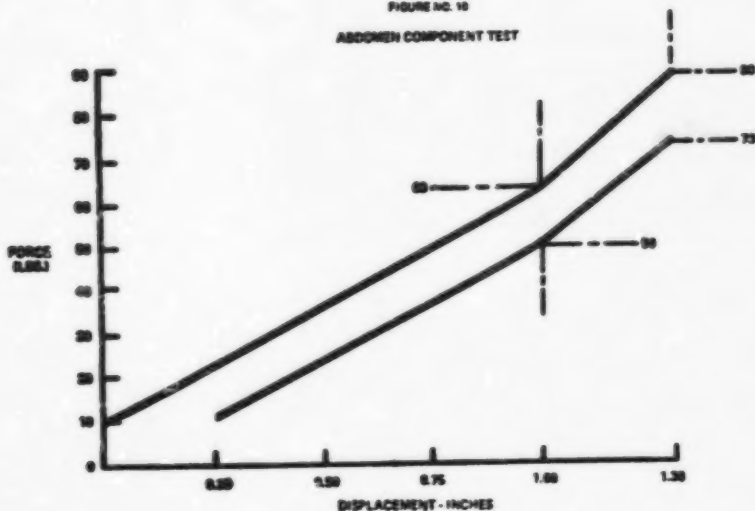
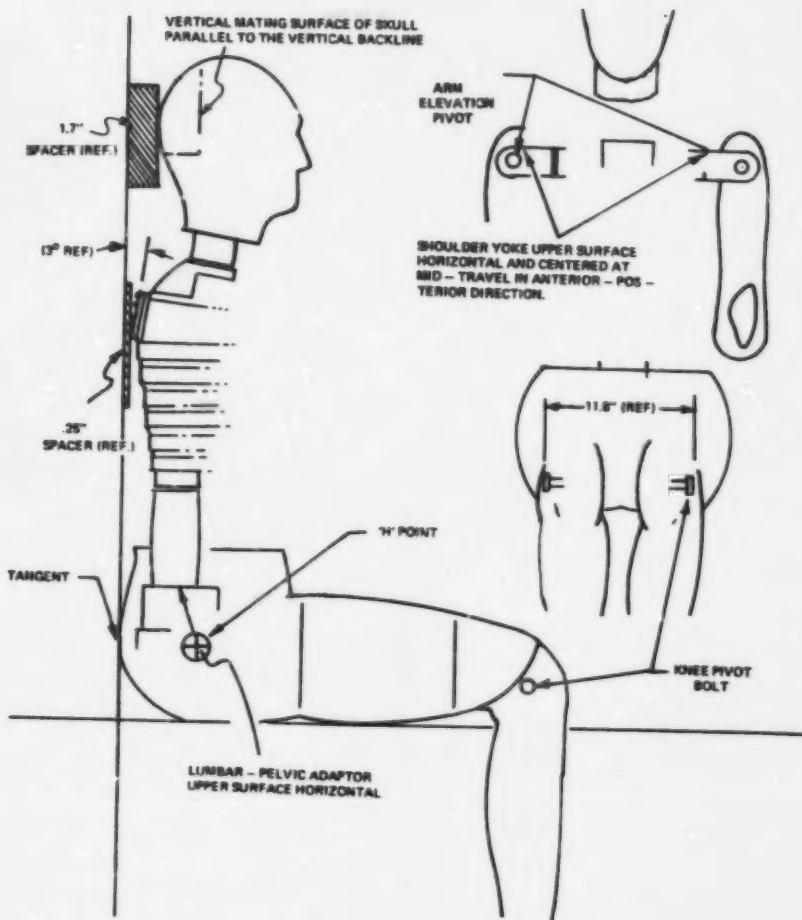


FIGURE No. 11

UPRIGHT SEATED POSITION FOR LINEAR MEASUREMENTS



[38 FR 20451, Aug. 1, 1973, as amended at 42 FR 7153, Feb. 7, 1977]

Subpart C—3-Year-Old Child

Source: 44 FR 76536, Dec. 27, 1979, unless otherwise noted.

§ 572.15 General description.

(a) The dummy consists of the component assemblies specified in drawing SA 103C 001, which are described in their entirety by means of approximately 122 drawings and specifications and an Operation and Maintenance Manual, dated May 28, 1976. The drawings and specifications are grouped by component assemblies under the following thirteen headings:

SA 103C 010 Head Assembly
SA 103C 020 Neck Assembly
SA 103C 030 Torso Assembly
SA 103C 041 Upper Arm Assembly Left
SA 103C 042 Upper Arm Assembly Right
SA 103C 051 Forearm Hand Assembly Left
SA 103C 052 Forearm Hand Assembly Right
SA 103C 061 Upper Leg Assembly Left
SA 103C 062 Upper Leg Assembly Right
SA 103C 071 Lower Leg Assembly Left
SA 103C 072 Lower Leg Assembly Right
SA 103C 081 Foot Assembly left
SA 103C 082 Foot Assembly Right.

(b) The drawings, specifications, and operation and maintenance manual referred to in this regulation that are not set forth in full are hereby incorporated in this Part by reference. These materials are thereby made part of this regulation. The Director of the Federal Register has approved the materials incorporated by reference. For materials subject to change, only the specific version approved by the Director of the Federal Register and specified in the regulation are incorporated. A notice of any change will be published in the FEDERAL REGISTER. As a convenience to the reader, the materials incorporated by reference are listed in the Finding Aid Table found at the end of this volume of the Code of Federal Regulations.

(c) The materials incorporated by reference are available for examination in Docket 78-09, Room 5109, Docket Section, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, DC 20590. Copies may be obtained from Rowley-Scher Reprographics, Inc., 1216 K Street NW., Washington, DC 20005 ((202) 628-0667). The materials are also on file in the reference library

of the Office of the Federal Register, National Archives and Records Administration, Washington, DC.

(d) Adjacent segments are joined in a manner such that throughout the range of motion and also under simulated crash-impact conditions there is no contact between metallic elements except for contacts that exist under static conditions.

(e) The structural properties of the dummy are such that the dummy conforms to this Part in every respect both before and after being used in vehicle tests specified in Standard No. 213 of this Chapter (571.213).

(f) The patterns of all cast and molded parts for reproduction of the molds needed in manufacturing of the dummies can be obtained on a loan basis by manufacturers of the testes dummies, or others if need is shown, from: Office of Vehicle Safety Standards, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, DC 20590.

[50 FR 25423, June 19, 1985]

§ 572.16 Head.

(a) The head consists of the assembly shown in drawing SA 103C 001 by number SA 103C 010, and conforms to each of the drawings listed under this number on drawing SA 103C 002, sheet 8.

(b) When the head is impacted in accordance with paragraph (c) of this section by a test probe conforming to § 572.21(a) at 7 fps, the peak resultant acceleration measured at the location of the accelerometer mounted in the headform in accordance with § 572.21(b) shall be not less than 98g and not more than 118g. The recorded acceleration-time curve for this test shall be unimodal at, or above the 50g level and shall lie at, or above that level for an interval not less than 2.0 and not more than 3.0 milliseconds. The lateral acceleration vector shall not exceed 7g.

(c) Test procedure. (1) Seat the dummy on a seating surface having a back support as specified in § 572.21(h) and orient the dummy in accordance with § 572.21(h) and adjust the joints of the limbs at any setting between 1g and 2g, which just supports the limbs'

weight when the limbs are extended horizontally forward.

(2) Adjust the test probe so that its longitudinal centerline is at the forehead at the point of orthogonal intersection of the head midsagittal plane and the transverse plane which is perpendicular to the "Z" axis of the head (longitudinal centerline of the skull anchor) and is located 0.6 ± 0.1 inches above the centers of the head center of gravity reference pins and coincides within 2 degrees with the line made by the intersection of horizontal and midsagittal planes passing through this point.

(3) Adjust the dummy so that the surface area on the forehead immediately adjacent to the projected longitudinal centerline of the test probe is vertical.

(4) Impact the head with the test probe so that at the moment of impact the probe's longitudinal centerline falls within 2 degrees of a horizontal line in the dummy's midsagittal plane.

(5) Guide the probe during impact so that it moves with no significant lateral, vertical, or rotational movement.

(6) Allow a time period of at least 30 minutes between successive tests of the head.

[44 FR 78530, Dec. 27, 1979; 45 FR 43353, June 26, 1980, as amended at 45 FR 82267, Dec. 15, 1980]

§ 572.17 Neck.

(a) The neck consists of the assembly shown in drawing SA 103C 001 as number SA 103C 020, and conforms to each of the drawings listed under this number on drawing SA 103C 002, sheet 9.

(b) When the head-neck assembly is tested in accordance with paragraph (c) of this section, the head shall rotate in reference to the pendulum's longitudinal centerline a total of 84 degrees ± 8 degrees about its center of gravity, rotating to the extent specified in the following table at each indicated point in time, measured from impact, with the chordal displacement measured at its center of gravity. The chordal displacement at time T is defined as the straight line distance between (1) the position relative to the pendulum arm of the head center of gravity at time zero, and (2) the posi-

tion relative to the pendulum arm of the head center of gravity at time T as illustrated by figure 3. The peak resultant acceleration recorded at the location of the accelerometers mounted in the headform in accordance with § 572.21(b) shall not exceed 30g. The pendulum shall not reverse direction until the head's center of gravity returns to the original zero time position relative to the pendulum arm.

Rotation (degrees)	Time (ms) $\pm (2 + 0.8T)$	Chordal displacement (inches ± 0.8)
0.....	0	0
30.....	21	2.2
60.....	36	4.3
Maximum.....	62	5.8
60.....	91	4.3
30.....	108	2.2
0.....	123	0

(c) *Test procedure.* (1) Mount the head and neck on a rigid pendulum as specified in Figure 4, so that the head's midsagittal plane is vertical and coincides with the plane of motion of the pendulum's longitudinal centerline. Mount the neck directly to the pendulum as shown in Figure 15.

(2) Release the pendulum and allow it to fall freely from a height such that the velocity at impact is 17.00 ± 1.0 feet per second (fps), measured at the center of the accelerometer specified in figure 4.

(3) Decelerate the pendulum to a stop with an acceleration-time pulse described as follows:

(i) Establish 5g and 20g levels on the a-t curve.

(ii) Establish t_1 at the point where the a-t curve first crosses the 5g level, t_2 at the point where the rising a-t curve first crosses the 20g level, t_3 at the point where the decaying a-t curve last crosses the 20g level, and t_4 at the point where the decaying a-t curve first crosses the 5g level.

(iii) $t_3 - t_1$, shall be not more than 4 milliseconds.

(iv) $t_4 - t_2$, shall be not less than 18 and not more than 21 milliseconds.

(v) $t_4 - t_3$, shall be not more than 5 milliseconds.

(vi) The average deceleration between t_1 and t_2 shall be not less than 20g and not more than 34g.

(4) Allow the neck to flex without contact of the head or neck with any object other than the pendulum arm.

(5) Allow a time period of at least 1 hour between successive tests of the head and neck.

[44 FR 76630, Dec. 27, 1979; 45 FR 13353, June 26, 1980]

§ 572.18 Thorax.

(a) The thorax consists of the part of the torso shown in assembly drawing SA 103C 001 by number SA 103C 030 and conforms to each of the applicable drawings listed under this number on drawing SA 103C 002, sheets 10 and 11.

(b) When impacted by a test probe conforming to § 572.21(a) at 13 fps. in accordance with paragraph (c) of this section, the peak resultant accelerations at the location of the accelerometers mounted in the chest cavity in accordance with § 572.21(c) shall be not less than 50g and not more than 70g. The acceleration-time curve for the test shall be unimodal at or above the 30g level and shall lie at or above the 30g level for an interval not less than 2.5 milliseconds and not more than 4.0 milliseconds. The lateral acceleration shall not exceed 5g.

(c) *Test procedure.* (1) With the dummy seated without back support on a surface as specified in § 572.21(h) and oriented as specified in § 572.21(h), adjust the dummy arms and legs until they are extended horizontally forward parallel to the midsagittal plane. The joints of the limbs are adjusted at any setting between 1g and 2g, which just supports the limbs' weight when the limbs are extended horizontally forward.

(2) Establish the impact point at the chest midsagittal plane so that it is 1.5 inches below the longitudinal centerline of the bolt that attaches the top of the ribcage sternum to the thoracic spine box.

(3) Adjust the dummy so that the tangent plane at the surface on the thorax immediately adjacent to the designated impact point is vertical and parallel to the face of the test probe.

(4) Place the longitudinal centerline of the test probe to coincide with the designated impact point and align the test probe so that at impact its longitudinal centerline coincides within 2 degrees with the line formed by intersection of the horizontal and midsagittal planes passing through the designated impact point.

(5) Impact the thorax with the test probe so that at the moment of impact the probe's longitudinal centerline falls within 2 degrees of a horizontal line in the dummy midsagittal plane.

(6) Guide the probe during impact so that it moves with no significant lateral, vertical or rotational movement.

(7) Allow a time period of at least 20 minutes between successive tests of the chest.

§ 572.19 Lumbar spine, abdomen and pelvis.

(a) The lumbar spine, abdomen, and pelvis consist of the part of the torso assembly shown by number SA 103C 030 on drawing SA 103C 001 and conform to each of the applicable drawings listed under this number on drawing SA 103C 002, sheets 10 and 11.

(b) When subjected to continuously applied force in accordance with paragraph (c) of this section, the lumbar spine assembly shall flex by an amount that permits the rigid thoracic spine to rotate from its initial position in accordance with Figure 18 of this subpart by 40 degrees at a force level of not less than 34 pounds and not more than 47 pounds, and straighten upon removal of the force to within 5 degrees of its initial position.

(c) *Test procedure.* (1) The dummy with lower legs removed is positioned in an upright seated position on a seat as indicated in Figure 18, ensuring that all dummy component surfaces are clean, dry and untreated unless otherwise specified.

(2) Attach the pelvis to the seating surface by a bolt C/328 modified as shown in Figure 18, and the upper legs at the knee axial rotation joints by the attachments shown in Figure 18. Tighten the mountings so that the pelvis-lumbar joining surface is horizontal and adjust the femur ball-flange screws at each hip socket joint

to 50 inch pounds torque. Remove the head and the neck and install a cylindrical aluminum adapter 2.0 inches in diameter and 2.80 inches long in place of the neck.

(3) Flex the thorax forward 50 degrees and then rearward as necessary to return to its initial position in accordance with Figure 18 unsupported by external means.

(4) Apply a forward pull force in the midsagittal plane at the top of the neck adapter, so that at 40 degrees of the lumbar spine flexion the applied force is perpendicular to the thoracic spine box. Apply the force at any torso deflection rate between 0.5 and 1.5 degrees per second up to 40 degrees of flexion but no further; continue to apply for 10 seconds the force necessary to maintain 40 degrees of flexion, and record the highest applied force at that time. Release all force as rapidly as possible and measure the return angle 3 minutes after the release.

§ 572.20 Limbs.

The limbs consist of the assemblies shown on drawing SA 103C 001 as Nos. SA 103C 041, SA 103C 042, SA 103C 051, SA 103C 052, SA 103C 061, SA 103C 062, SA 103C 071, SA 103C 072, SA 103C 081, SA 103C 082, and conform to each of the applicable drawings listed under their respective numbers of the drawing SA 103C 002, sheets 12 through 21.

§ 572.21 Test conditions and instrumentation.

(a) The test probe used for head and thoracic impact tests is a cylinder 3 inches in diameter, 13.8 inches long and weighs 10 lbs., 6 ozs. Its impacting end has a flat right face that is rigid and that has an edge radius of 0.5 inches.

(b) A triaxial accelerometer is mounted in the head on the mounting block (A/310) located on the horizontal transverse bulkhead as shown in the drawings subreferenced under assembly SA 103C 010 so that its seismic mass centers are positioned as specified in this paragraph relative to the head accelerometer reference point located at the intersection of a line connecting the longitudinal centerlines of the transfer pins in the sides of the

dummy head with the midsagittal plane of the Jummy head. The triaxial accelerometer is aligned with one sensitive axis parallel to the vertical bulkhead and midsagittal plane and its seismic mass center is located 0.2 inches dorsal to and 0.1 inches inferior to the head accelerometer reference point. Another sensitive axis of the triaxial accelerometer is aligned with the horizontal plane and is perpendicular to the midsagittal plane and its seismic mass center is located 0.1 inch inferior to, 0.4 inches to the right of and 0.9 inch dorsal to the head accelerometer reference point. The third sensitive axis of the triaxial accelerometer is aligned so that it is parallel to the midsagittal and horizontal planes and its seismic mass center is located 0.1 inches inferior to, 0.6 inches dorsal to and 0.4 inches to the right of the head accelerometer reference point. All seismic mass centers shall be positioned within ± 0.05 inches of the specified locations.

(c) A triaxial accelerometer is mounted in the thorax on the mounting plate attached to the vertical transverse bulkhead shown in the drawing subreferenced under assembly No. SA 103C 030 in drawing SA 103C 001 so that its seismic mass centers are positioned as specified in this paragraph relative to the thorax accelerometer reference point located in the midsagittal plane 3 inches above the top surface of the lumbar spine and 0.3 inches dorsal to the accelerometer mounting plate surface. The triaxial accelerometer is aligned so that one sensitive axis is parallel to the vertical bulkhead and midsagittal planes and its seismic mass center is located 0.2 inches to the left of, 0.1 inches inferior to and 0.2 inches ventral to the thorax accelerometer reference point. Another sensitive axis of the triaxial accelerometer is aligned so that it is in the horizontal transverse plane and perpendicular to the midsagittal plane and its seismic mass center is located 0.2 inches to the right of, 0.1 inches inferior to and 0.2 inches ventral to the thorax accelerometer reference point. The third sensitive axis of the triaxial accelerometer is aligned so that it is parallel to the midsagittal and horizontal planes and its seismic mass

center is located 0.2 inches superior to, 0.5 inches to the right of and 0.1 inches ventral to the thorax accelerometer reference point. All seismic mass centers shall be positioned within

± 0.05 inches of the specified locations.

(d) The outputs of accelerometers installed in the dummy, and of test apparatus specified by this part, are recorded in individual data channels that conform to the requirements of SAE Recommended Practice J211a, December 1971, with channel classes as follows:

(1) Head acceleration—Class 1000.

(2) Pendulum acceleration—Class 60.

(3) Thorax acceleration—Class 180.

(e) The mountings for accelerometers have no resonance frequency less than cut-off 3 times the cut-off frequency of the applicable channel class.

(f) Limb joints are set at the force between 1-2g, which just supports the limbs' weight when the limbs are extended horizontally forward. The force required to move a limb segment does not exceed 2g throughout the range of limb motion.

(g) Performance tests are conducted at any temperature from 66° F to 78° F and at any relative humidity from 10 percent to 70 percent after exposure of the dummy to these conditions for a period of not less than 4 hours.

(h) For the performance tests specified in §§ 572.16, 572.18, and 572.19, the dummy is positioned in accordance with Figures 16, 17, and 18 as follows:

(1) The dummy is placed on a flat, rigid, clean, dry, horizontal surface of

teflon sheeting with a smoothness of 40 microinches and whose length and width dimensions are not less than 18 inches, so that the dummy's midsagittal plane is vertical and centered on the test surface. For head tests, the seat has a vertical back support whose top is 12.4 ± 0.2 inches above the seating surface. The rear surfaces of the dummy's shoulders and buttocks are touching the back support as shown in Figure 16. For thorax and lumbar spine tests, the seating surface is without the back support as shown in Figures 17 and 18, respectively.

(2) The shoulder yokes are adjusted so that they are at the midpoint of their anterior-posterior travel with their upper surfaces horizontal.

(3) The dummy is adjusted for head impact and lumbar flexion tests so that the rear surfaces of the shoulders and buttocks are tangent to a transverse vertical plane.

(4) The arms and legs are positioned so that their centerlines are in planes parallel to the midsagittal plane.

(i) The dummy's dimensions are specified in drawings No. SA 103C 002, sheets 22 through 26.

(j) Performance tests of the same component, segment, assembly or fully assembled dummy are separated in time by a period of not less than 20 minutes unless otherwise specified.

(k) Surfaces of the dummy components are not painted except as specified in this part or in drawings subtended by this part.

[44 FR 76530, Dec. 27, 1979, as amended at 45 FR 82267, Dec. 15, 1980]

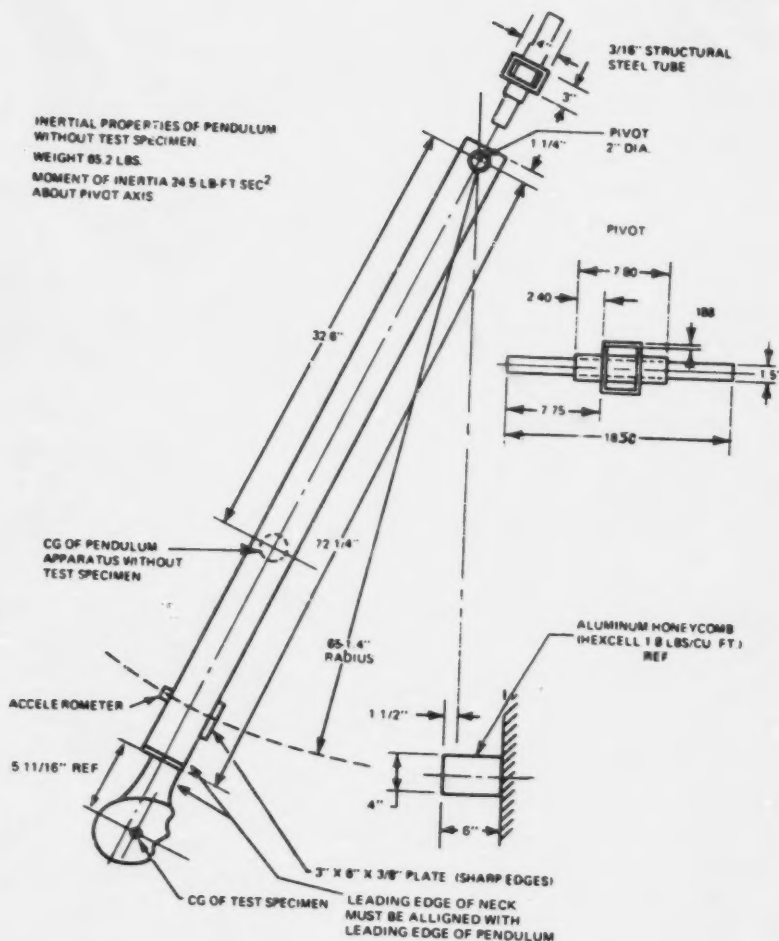


FIGURE NO. 15
NECK COMPONENT TEST

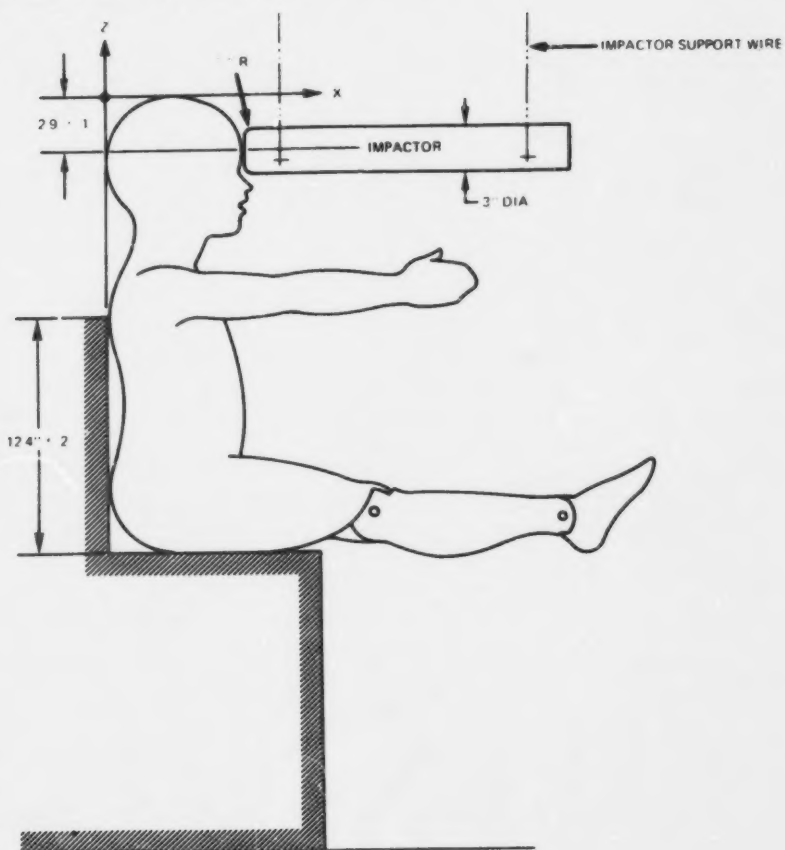


FIGURE NO. 18
HEAD IMPACT TEST

IMPACTOR FACE TO BE VERTICAL $\pm 2^\circ$
AT CONTACT OF CHEST

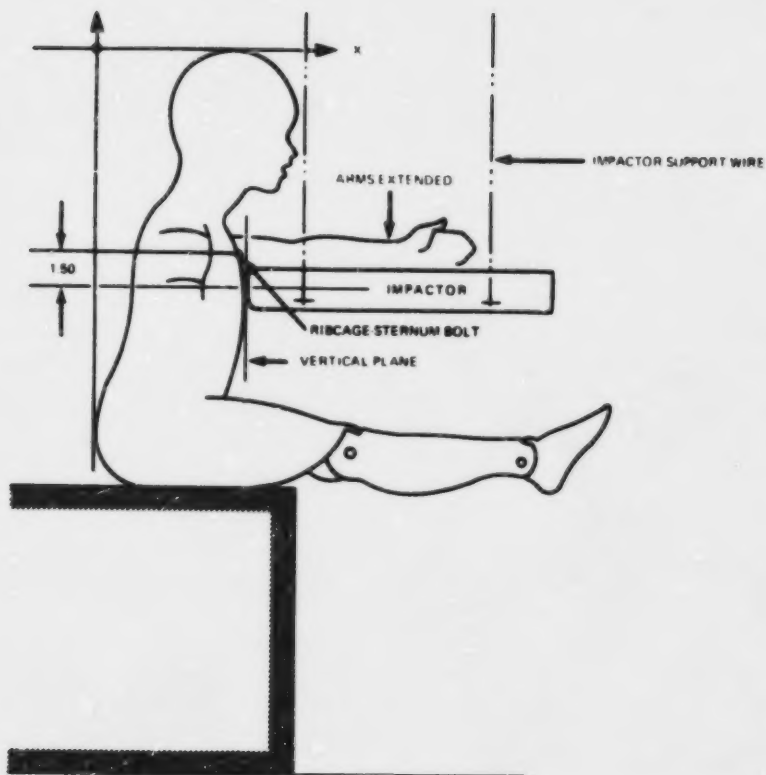


FIGURE NO. 17
CHEST IMPACT TEST

Subpart D—4-Month-Old Infant**§ 572.25 General description.**

(a) The infant dummy is specified in its entirety by means of 5 drawings (No. SA 1001) and a construction manual, dated July 2, 1974, which describe in detail the materials and the procedures involved in the manufacturing of this dummy.

(b) The drawings, specifications, and construction manual referred to in this regulation that are not set forth in full are hereby incorporated in this Part by reference. These materials are thereby made part of this regulation. The Director of the Federal Register has approved the materials incorporated by reference. For materials subject to change, only the specific version approved by the Director of the Federal Register and specified in the regulation are incorporated. A notice of any change will be published in the *FEDERAL REGISTER*. As a convenience to the reader, the materials incorporated by reference are listed in the Finding Aid Table found at the end of this volume of the Code of Federal Regulations.

(c) The materials incorporated by reference are available for examination in Docket 78-09, Room 5109, Docket Section, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, DC, 20590. Copies may be obtained from Rowley-Scher Reprographics, Inc., 1216 K Street NW., Washington, DC 20005 ((202) 626-6667). The materials are also on file in the reference library of the Office of the Federal Register, National Archives and Records Administration, Washington, DC.

(d) The structural properties of the dummy are such that the dummy conforms to this Part in every respect both before and after being used in vehicle tests specified in Standard No. 213 of this Chapter (571.213).

[50 FR 25434, June 19, 1985]

PART 573—DEFECT AND NONCOMPLIANCE REPORTS

Sec.

573.1 Scope.

573.2 Purpose.

573.3 Application.

Sec.

573.4 Definitions.

573.5 Defect and noncompliance information report.

573.6 Quarterly report.

573.7 Purchaser and owner lists.

573.8 Notices, bulletins, and other communications.

573.9 Address for submitting required reports and other information.

AUTHORITY: Secs. 108, 112, 119, Pub. L. 89-563, 80 Stat. 718; sec. 102, 103, 104, Pub. L. 93-492; 88 Stat. 1470; 15 U.S.C. 1397, 1401, 1406, 1411-1420; delegations of authority at 49 CFR 1.50 and 49 CFR 501.2.

SOURCE: 43 FR 60160, Dec. 28, 1978, unless otherwise noted.

§ 573.1 Scope.

This part specifies requirements for manufacturers to maintain lists of purchasers and owners notified of defective and noncomplying motor vehicles and motor vehicle original and replacement equipment, and for reporting to the National Highway Traffic Safety Administration defects in motor vehicles and motor vehicle equipment, for reporting nonconformities to motor vehicle safety standards, for providing quarterly reports on defect and noncompliance notification campaigns, and for providing copies to NHTSA of communications with distributors, dealers, and purchasers regarding defects and noncompliances.

[43 FR 60160, Dec. 28, 1978, as amended at 44 FR 20437, Apr. 5, 1979]

§ 573.2 Purpose.

The purpose of this part is to inform NHTSA of defective and noncomplying motor vehicles and items of motor vehicle equipment, and to obtain information for NHTSA on the adequacy of manufacturers' defect and noncompliance notification campaigns, on corrective action, on owner response, and to compare the defect incidence rate among different groups of vehicles.

§ 573.3 Application.

(a) This part applies to manufacturers of complete motor vehicles, incomplete motor vehicles, and motor vehicle original and replacement equipment, with respect to all vehicles and equipment that have been transported

beyond the direct control of the manufacturer.

(b) In the case of a defect or non-compliance determined to exist in a motor vehicle or equipment item imported into the United States, compliance with §§ 573.5 and 573.6 by either the fabricating manufacturer or the importer of the vehicle or equipment item shall be considered compliance by both.

(c) In the case of a defect or non-compliance determined to exist in a vehicle manufactured in two or more stages, compliance with §§ 573.5 and 573.6 by either the manufacturer of the incomplete vehicle or any subsequent manufacturer of the vehicle shall be considered compliance by all manufacturers.

(d) In the case of a defect or non-compliance determined to exist in an item of replacement equipment (except tires) compliance with §§ 573.5 and 573.6 by the brand name or trademark owner shall be considered compliance by the manufacturer. Tire brand name owners are considered manufacturers (15 U.S.C. 1419(1)) and have the same reporting requirements as manufacturers.

(e) In the case of a defect or non-compliance determined to exist in an item of original equipment used in the vehicles of only one vehicle manufacturer, compliance with §§ 573.5 and 573.6 by either the vehicle or equipment manufacturer shall be considered compliance by both.

(f) In the case of a defect or non-compliance determined to exist in original equipment installed in the vehicles of more than one vehicle manufacturer, compliance with § 573.5 is required of the equipment manufacturer as to the equipment item, and of each vehicle manufacturer as to the vehicles in which the equipment has been installed. Compliance with § 573.6 is required of the manufacturer who is conducting a recall campaign.

§ 573.4 Definitions.

For purposes of this part:

"Act" means the National Traffic and Motor Vehicle Safety Act of 1966, as amended (15 U.S.C. 1391 et seq.).

"Administrator" means the Administrator of the National Highway Traf-

fic Safety Administration or his delegate.

"First purchaser" means first purchaser for purposes other than resale.

§ 573.5 Defect and noncompliance information report.

(a) Each manufacturer shall furnish a report to the NHTSA for each defect in his vehicles or in his items of original or replacement equipment that he or the Administrator determines to be related to motor vehicle safety, and for each noncompliance with a motor vehicle safety standard in such vehicles or items of equipment which either he or the Administrator determines to exist.

(b) Each report shall be submitted not more than 5 working days after a defect in a vehicle or item of equipment has been determined to be safety related, or a noncompliance with a motor vehicle safety standard has been determined to exist. Information required by paragraph (c) of this section that is not available within that period shall be submitted as it becomes available. Each manufacturer submitting new information relative to a previously submitted report shall refer to the notification campaign number when a number has been assigned by the NHTSA.

(c) Each manufacturer shall include in each report the information specified below.

(1) The manufacturer's name: The full corporate or individual name of the fabricating manufacturer and any brand name or trademark owner of the vehicle or item of equipment shall be spelled out, except that such abbreviations as "Co." or "Inc.", and their foreign equivalents, and the first and middle initials of individuals, may be used. In the case of a defect or non-compliance determined to exist in an imported vehicle or item of equipment, the agent designated by the fabricating manufacturer pursuant to section 110(e) of the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1390(e)) shall be also stated. If the fabricating manufacturer is a corporation that is controlled by another corporation that assumes responsibility for compliance with all requirements

of this part the name of the controlling corporation may be used.

(2) Identification of the vehicles or items of motor vehicle equipment potentially containing the defect or noncompliance.

(i) In the case of passenger cars, the identification shall be by the make, line, model year, the inclusive dates (month and year) of manufacture, and any other information necessary to describe the vehicles.

(ii) In the case of vehicles other than passenger cars, the identification shall be by body style or type, inclusive dates (month and year) of manufacture and any other information necessary to describe the vehicles, such as GVWR or class for trucks, displacement (cc) for motorcycles, and number of passengers for buses.

(iii) In the case of items of motor vehicle equipment, the identification shall be by the generic name of the component (tires, child seating systems, axles, etc.), part number, size and function if applicable, the inclusive dates (month and year) of manufacture if available and any other information necessary to describe the items.

(3) The total number of vehicles or items of equipment potentially containing the defect or noncompliance, and where available the number of vehicles or items of equipment in each group identified pursuant to paragraph (c)(2) of this section.

(4) The percentage of vehicles or items of equipment specified pursuant to paragraph (c)(2) of this section estimated to actually contain the defect or noncompliance.

(5) A description of the defect or noncompliance, including both a brief summary and a detailed description, with graphic aids as necessary, of the nature and physical location (if applicable) of the defect or noncompliance.

(6) In the case of a defect, a chronology of all principal events that were the basis for the determination that the defect related to motor vehicle safety, including a summary of all warranty claims, field or service reports, and other information, with their dates of receipt.

(7) In the case of a noncompliance, the test results or other data on the

basis of which the manufacturer determined the existence of the noncompliance.

(8) A description of the manufacturer's program for remedying the defect or noncompliance. The manufacturer's program will be available for inspection in the public docket, Room 5100, Nassif Building, 400 Seventh St., SW., Washington, D.C. 20060.

(9) A representative copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and are sent to more than one manufacturer, distributor, dealer, or purchaser. These copies shall be submitted to the NHTSA not later than 5 days after they are initially sent to manufacturers, distributors, dealers, or purchasers. In the case of any notification sent by the manufacturer pursuant to Part 577 of this chapter, the copy of the notification shall be submitted by certified mail.

(43 FR 60169, Dec. 26, 1978, as amended at 44 FR 20437, Apr. 5, 1979; 46 FR 44081, Sept. 27, 1983)

§ 573.6 Quarterly reports.

(a) Each manufacturer who is conducting a defect or noncompliance notification campaign to manufacturers, distributors, dealers, or purchasers, shall submit to NHTSA a report in accordance with paragraphs (b) and (c) of this section, not more than 25 working days after the close of each calendar quarter. Unless otherwise directed by the NHTSA, the information specified in paragraphs (b) (1) through (6) of this section shall be included in the quarterly report, with respect to each notification campaign, for each of six consecutive quarters beginning with the quarter in which the campaign was initiated (i.e., the date of initial mailing of the defect or noncompliance notification to owners) or corrective action has been completed on all defective or noncomplying vehicles or items of replacement equipment involved in the campaign, whichever occurs first. The information specified in paragraph (b)(7) of this section shall be included only in the third quarterly report furnished pursuant to this section.

(b) Each report shall include the following information identified by and in the order of the subparagraph headings of this paragraph.

(1) The notification campaign number assigned by NHTSA.

(2) The date notification began and the date completed.

(3) The number of vehicles or items of equipment involved in the notification campaign.

(4) The number of vehicles or items of equipment estimated to contain the defect.

(5) The number of vehicles and equipment items receiving corrective action, which shall be the sum of

(i) The number repaired; and

(ii) The number inspected and determined not to need repair.

(6) The number of vehicles or items of equipment determined to be unreachable for inspection due to export, theft, scrapping, failure to receive notification, or other reasons (specify). The number of vehicles or items of equipment in each category shall be specified.

(7) In the case of motor vehicles, the vehicle identification number for each vehicle for which corrective measures have not been completed.

(c) If the manufacturer determines that the original information submitted under paragraphs (b) (3), (4), or (6) of this section is incorrect, revised figures and an explanatory note shall be submitted. If the nature of the defect or noncompliance prevents determination of the information required by paragraph (b)(5) of this section, the manufacturer shall include a brief explanation. Information supplied in response to paragraphs (b) (5) and (6) of this section shall be cumulative totals.

§ 573.7 Purchaser and owner lists.

(a) Each manufacturer of motor vehicles shall maintain, in a form suitable for inspection such as computer information storage devices or card files, a list of the names and addresses of the registered owners, as determined through State motor vehicle registration records or other sources, or the most recent purchasers where the registered owners are unknown, for all vehicles involved in a defect or noncom-

pliance notification campaign initiated after the effective date of this part. The list shall include the vehicle identification number for each vehicle and the status of remedy with respect to each vehicle, updated as of the end of each quarterly reporting period specified in § 573.6. Each list shall be retained, beginning with the date on which the defect or noncompliance information report required by § 573.5 is initially submitted to the NHTSA, for 5 years.

(b) Each manufacturer (including brand name owners) of tires shall maintain, in a form suitable for inspection such as computer information storage devices or card files, a list of the names and addresses of the first purchasers of his tires for all tires involved in a defect or noncompliance notification campaign initiated after the effective date of this part. The list shall include the tire identification number of all tires and shall show the status of remedy with respect to each owner involved in each notification campaign, updated as of the end of each quarterly reporting period specified in § 573.6. Each list shall be retained, beginning with the date on which the defect information report is initially submitted to the NHTSA, for 3 years.

(c) For each item of equipment involved in a defect or noncompliance notification campaign initiated after the effective date of this part, each manufacturer of motor vehicle equipment other than tires shall maintain, in a form suitable for inspection, such as computer information storage devices or card files, a list of the names and addresses of each distributor and dealer of such manufacturer, each motor vehicle or motor vehicle equipment manufacturer and most recent purchaser known to the manufacturer to whom a potentially defective or noncomplying item of equipment has been sold and to whom notification is sent, the number of such items sold to each, and the date of shipment. The list shall show as far as is practicable the number of items remedied or returned to the manufacturer and the dates of such remedy or return. Each list shall be retained, beginning with the date on which the defect report re-

quired by § 573.5 is initially submitted to the NHTSA for 5 years.

[49 FR 69169, Dec. 26, 1978, as amended at 44 FR 26427, Apr. 8, 1979]

§ 573.8 Notices, bulletins, and other communications.

Each manufacturer shall furnish to the NHTSA a copy of all notices, bulletins, and other communications (including warranty and policy extension communiques and product improvement bulletins), other than those required to be submitted pursuant to § 573.5(c)(9), sent to more than one manufacturer, distributor, dealer, or purchaser, regarding any defect in his vehicles or items of equipment [(including any failure or malfunction beyond normal deterioration in use, or any failure of performance, or any flaw or unintended deviation from design specifications)], whether or not such defect is safety-related. Copies shall be submitted monthly, not more than 5 working days after the end of each month.

§ 573.9 Address for submitting required reports and other information.

All required reports and other information, except as otherwise required by this part, shall be submitted to the Associate Administrator for Enforcement, National Highway Traffic Safety Administration, Washington, D.C. 20590.

PART 574—TIRE IDENTIFICATION AND RECORDKEEPING

Sec.

574.1 Scope.

574.2 Purpose.

574.3 Definitions.

574.4 Applicability.

574.5 Tire identification requirements.

574.6 Identification mark.

574.7 Information requirements—new tire manufacturers, new tire brand name owners.

574.8 Information requirements—tire distributors and dealers.

574.9 Requirements for motor vehicle dealers.

574.10 Requirements for motor vehicle manufacturers.

AUTHORITY: Secs. 103, 108, 112, 119, 301, Pub. L. 92-493, 90 Stat. 718 (15 U.S.C. 1392, 1397, 1401, 1407, 1431); sec. 102, 103, 104,

Pub. L. 92-493, 58 Stat. 1470 (15 U.S.C. 1397, 1401, 1411-1430); delegation of authority at 49 CFR 1.56, unless otherwise noted.

EDITORIAL NOTE: An interpretation of manufacturer's designee issued by NHTSA and published at 36 FR 9780, May 28, 1971, provides as follows:

"A request for an interpretation has been received from the Rubber Manufacturers Association asking that it be made clear that, under the Tire Identification and Recordkeeping Regulation (Part 574), particularly §§ 574.7 and 574.8, only the tire manufacturer, brand name owner, or retreader may designate a third party to provide the necessary recording forms or to maintain the records required by the regulation.

Another person has requested an interpretation concerning the questions whether: (1) A tire manufacturer, brand name owner or retreader may designate one or more persons to be its designee for the purpose of maintaining the information, (2) An independent distributor or dealer may select a designee for the retention of the manufacturer's records, provided the manufacturer approves the designation, and (3) the independent distributor or dealer may seek administrative relief in the event he believes the information retained by the manufacturer is being used to his detriment.

Under section 113(f) of the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1402(f) and Part 574, it is the tire manufacturer who has the ultimate responsibility for maintaining the records of first purchasers. Therefore, it is the tire manufacturer or his designee who must maintain these records. The term "designee", as used in the regulation, was not intended to preclude multiple designees; if the tire manufacturer desires, he may designate more than one person to maintain the required information. Furthermore, neither the Act nor the regulation prohibits the distributor or dealer from being the manufacturer's designee nor do they prohibit a distributor or dealer from selecting someone to be the manufacturer's designee provided the manufacturer approves of the selection.

With respect to the possibility of manufacturers using the maintained information to the detriment of a distributor or dealer, the NHTSA will of course investigate claims by distributors or dealers of alleged misconduct and, if the maintained information is being misused, take appropriate action.

Issued under the authority of sections 102, 113, and 119 of the National Traffic and Motor Vehicle Safety Act, 15 U.S.C. 1392, 1402, and 1407, and the delegation of authority at 49 CFR 1.51."

§ 574.1 Scope.

This part sets forth the method by which new tire manufacturers and new tire brand name owners shall identify tires for use on motor vehicles and maintain records of tire purchasers, and the methods by which retreaders and retreaded tire brand name owners shall identify tires for use on motor vehicles. This part also sets forth the methods by which independent tire dealers and distributors shall record, on registration forms, their names and addresses and the identification number of the tires sold to tire purchasers and provide the forms to the purchasers, so that the purchasers may report their names to the new tire manufacturers and new tire brand name owners, and by which other tire dealers and distributors shall record and report the names of tire purchasers to the new tire manufacturers and new tire brand name owners.

(Secs. 103, 119, and 201, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1393, 1407, and 1421); sec. 4, Pub. L. 97-311, 96 Stat. 1619 (15 U.S.C. 1418); and delegation of authority at 49 CFR 1.50)

[49 FR 4760, Feb. 8, 1984]

§ 574.2 Purpose.

The purpose of this part is to facilitate notification to purchasers of defective or nonconforming tires, pursuant to sections 151 and 152 of the National Traffic and Motor Vehicle Safety Act of 1966, as amended (15 U.S.C. 1411 and 1412) (hereafter the Act), so that they may take appropriate action in the interest of motor vehicle safety.

[36 FR 1197, Jan. 26, 1971, as amended at 43 FR 60171, Dec. 26, 1978]

§ 574.3 Definitions.

(a) *Statutory definitions.* All terms in this part that are defined in section 102 of the Act are used as defined therein.

(b) *Motor vehicle safety standard definitions.* Unless otherwise indicated, all terms used in this part that are defined in the Motor Vehicle Safety Standards, Part 571 of this subchapter (hereinafter the Standards), are used as defined therein.

(c)(1) "Independent" means, with respect to a tire distributor or dealer, one whose business is not owned or controlled by a tire manufacturer or brand name owner.

(2) "Mileage contract purchaser" means a person who purchases or leases tire use on a mileage basis.

(3) "New tire brand name owner" means a person, other than a new tire manufacturer, who owns or has the right to control the brand name of a new tire or a person who licenses another to purchase new tires from a new tire manufacturer bearing the licensor's brand name.

(4) "Retreaded tire brand name owner" means a person, other than a retreader, who owns or has the right to control the brand name of a retreaded tire or a person who licenses another to purchase retreaded tires from a retreader bearing the licensor's brand name.

(5) "Tire purchaser" means a person who buys or leases a new tire, or who buys or leases for 60 days or more a motor vehicle containing a new tire for purposes other than resale.

(Secs. 103, 108, 112, 119, 201, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1393, 1397, 1401, 1407, 1421); sec. 102, 103, 104, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1411-1430); 92 Stat. 2689 (15 U.S.C. 1418); delegation of authority at 49 CFR 1.51)

[36 FR 1197, Jan. 26, 1971, as amended at 44 FR 7904, Feb. 8, 1979; 49 FR 38612, Oct. 1, 1984]

§ 574.4 Applicability.

This part applies to manufacturers, brand name owners, retreaders, distributors, and dealers of new and retreaded tires for use on motor vehicles manufactured after 1948 and to manufacturers and dealers of motor vehicles manufactured after 1948. However, it does not apply to persons who retread tires solely for their own use.

[36 FR 5422, Mar. 23, 1971]

§ 574.5 Tire identification requirements.

Each tire manufacturer shall conspicuously label on one sidewall of each tire it manufactures, except tires manufactured exclusively for mileage-contract purchasers, by permanently molding into or onto the sidewall, in the manner and location specified in

Figure 1, a tire identification number containing the information set forth in paragraphs (a) through (d) of this section. Each tire retreader, except tire retreaders who retread tires solely for their own use, shall conspicuously label one sidewall of each tire it retreads by permanently molding or branding into or onto the sidewall, in the manner and location specified in Figure 2, a tire identification number containing the information set forth in paragraphs (a) through (d) of this section. In addition, the DOT symbol required by Federal Motor Vehicle Safety Standards shall be located as shown in Figures 1 and 2. The DOT symbol shall not appear on tires to which no Federal Motor Vehicle Safety Standard is applicable, except that the DOT symbol on tires for use on motor vehicles other than passenger cars may, prior to retreading, be removed from the sidewall or allowed to remain on the sidewall, at the retreader's option. The symbols to be used in the tire identification number for tire manufacturers and retreaders are: "A, B, C, D, E, F, H, J, K, L, M, N, P, R, T, U, V, W, X, Y, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0". Tires manufactured or retreaded exclusively for mileage-contract purchasers are not required to contain a tire identification number if the tire contains the phrase "for mileage contract use only" permanently molded into or onto the tire sidewall in lettering at least one-quarter inch high.

(a) *First grouping.* The first group, of two or three symbols, depending on whether the tire is new or retreaded, shall represent the manufacturer's assigned identification mark (see § 574.6).

(b) *Second grouping.* For new tires, the second group, of no more than two symbols, shall be used to identify the tire size. For retreaded tires, the

second group, of no more than two symbols, shall identify the retread matrix in which the tire was processed or a tire size code if a matrix was not used to process the retreaded tire. Each new-tire manufacturer and retreader shall maintain a record of each symbol used, with the corresponding matrix or tire size and shall provide such record to the NHTSA upon written request.

(c) *Third grouping.* The third group, consisting of no more than four symbols, may be used at the option of the manufacturer or retreader as a descriptive code for the purpose of identifying significant characteristics of the tire. However, if the tire is manufactured for a brand name owner, one of the functions of the third grouping shall be to identify the brand name owner. Each manufacturer or retreader who uses the third grouping shall maintain a detailed record of any descriptive or brand name owner code used, which shall be provided to the Bureau upon written request.

(d) *Fourth grouping.* The fourth group, of three symbols, shall identify the week and year of manufacture. The first two symbols shall identify the week of the year using "01" for the first full calendar week in each year. The final week of each year may include not more than 6 days of the following year. The third symbol shall identify the year. (Example: 311 means the 31st week of 1971, or August 1 through 7, 1971; 012 means the first week of 1972, or January 3 through 8, 1972.) The symbols signifying the date of manufacture shall immediately follow the optional descriptive code (paragraph (c) of this section). If no optional descriptive code is used the symbols signifying the date of manufacture shall be placed in the area shown in figures 1 and 2 for the optional descriptive code.

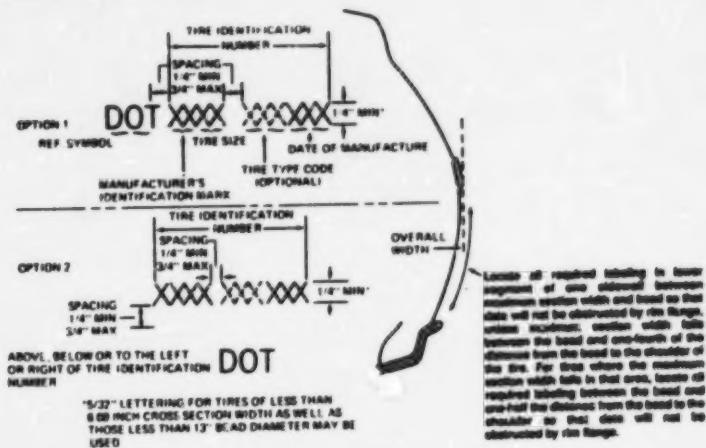
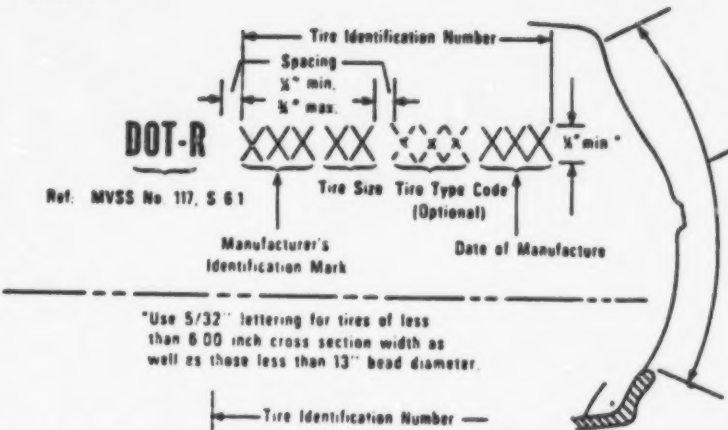


FIGURE 1 IDENTIFICATION NUMBER FOR NEW TIRES

Notes:

1. Tire identification number shall be in Futura Bold, Modified Condensed or Gothic characters permanently molded (0.020 to 0.040" deep, measured from the surface immediately surrounding characters) into or onto tire at indicated location on one side. (See Note 4)
2. Groups of symbols in the identification number shall be in the order indicated. Deviation from the straight line arrangement shown will be permitted if required to conform to the curvature of the tire.
3. When Type Code is omitted, or partially used, place Dots of Manufacture in the unused area.
4. Other print type will be permitted if approved by the administration.

OPTION 1



Locate
Tire Identification number
in This Area But Not On
The Scuff Rib(s)

NOTES:

1. Tire identification number shall be in "Futura Bold, Modified, Condensed or Gothic" characters permanently molded (0.020 to 0.040" deep, measured from the surface immediately surrounding characters) into or onto tire at indicated location on one side. (See Note 4)
2. Groups of symbols in the identification number shall be in the order indicated. Deviation from the straight line arrangement shown will be permitted if required to conform to the curvature of the tire.
3. When Tire Type Code is omitted, or partially used, place Date of Manufacture in the unused area.
4. Other print type will be permitted if approved by the Administration.

OPTION 2

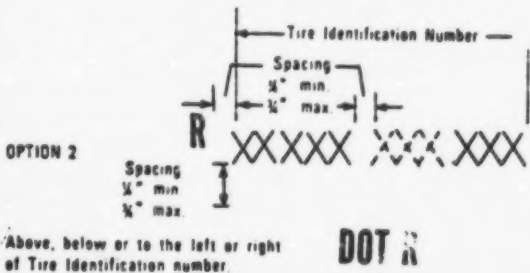


FIGURE 2 - IDENTIFICATION NUMBER FOR RETREADED TIRES.

LSH

(38 FR 1197, Jan. 26, 1971, as amended at 36 FR 9870, May 23, 1971; 37 FR 28737, Nov. 8, 1972; 37 FR 29821, Dec. 1, 1972; 39 FR 5192, Feb. 11, 1974; 39 FR 12109, Apr. 9, 1974; 50 FR 2288, Jan. 16, 1985; 50 FR 10774, Mar. 18, 1985)

§ 574.6 Identification mark.

To obtain the identification mark required by § 574.5(a), each manufacturer of new or retreaded motor vehicle tires shall apply after November 30, 1970, in writing, to "Tire Identification and Recordkeeping," National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, DC 20590, identify himself as a manufacturer of new tires or retreaded tires and furnish the following information:

(a) The name, or other designation identifying the applicant, and his main office address.

(b) The name, or other identifying designation, of each individual plant operated by the manufacturer and the address of each plant, if applicable.

(c) The type of tires manufactured at each plant, e.g., passenger car tires, bus tires, truck tires, motorcycle tires, or retreaded tires.

[36 FR 1197, Jan. 26, 1971, as amended at 48 FR 44081, Sept. 27, 1983]

§ 574.7 Information requirements—new tire manufacturers, new tire brand name owners.

(a)(1) Each new tire manufacturer and each new tire brand name owner (hereinafter referred to in this section and § 574.8 as "tire manufacturer") or its designee, shall provide tire registration forms to every distributor and dealer of its tires which offers new tires for sale or lease to tire purchasers.

(2) Each tire registration form provided to independent distributors and dealers pursuant to Paragraph (a)(1) of this section shall contain space for recording the information specified in paragraphs (a)(4)(A) through (a)(4)(C) of this section and shall conform in content and format to Figures 3a and 3b. Each form shall be:

(i) Rectangular;

(ii) Not less than .007 inches thick;

(iii) Greater than 3½ inches, but not greater than 4¼ inches wide; and

(iv) Greater than 5 inches, but not greater than 6 inches, long.

(3) Each tire registration form provided to distributors and dealers, other than independent distributors and dealers, pursuant to paragraph (a)(1) of this section shall be similar in format and size to Figure 4 and shall contain space for recording the information specified in paragraphs (a)(4)(A) through (a)(4)(C) of this section.

(4)(A) Name and address of the tire purchaser.

(B) Tire identification number.

(C) Name and address of the tire seller or other means by which the tire manufacturer can identify the tire seller.

(b) Each tire manufacturer shall record and maintain, or have recorded and maintained for it by a designee, the information from registration forms which are submitted to it or its designee. No tire manufacturer shall use the information on the registration forms for any commercial purpose detrimental to tire distributors and dealers. Any tire manufacturer to which registration forms are mistakenly sent shall forward those registration forms to the proper tire manufacturer within 90 days of the receipt of the forms.

(c) Each tire manufacturer shall maintain, or have maintained for it by a designee, a record of each tire distributor and dealer that purchases tires directly from the manufacturer and sells them to tire purchasers, the number of tires purchased by each such distributor or dealer, the number of tires for which reports have been received from each such distributor or dealer other than an independent distributor or dealer, the number of tires for which reports have been received from each such independent distributor or dealer, the total number of tires for which registration forms have been submitted to the manufacturer or its designee, and the total number of tires sold by the manufacturer.

(d) The information that is specified in paragraph (a)(4) of this section and recorded on registration forms submitted to a tire manufacturer or its designee shall be maintained for a period of not less than three years from the date on which the information is recorded by the manufacturer or its designee.

(Secs. 108, 119, and 201, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407, and 1421); sec. 4, Pub. L. 97-311, 96 Stat. 1619 (15 U.S.C. 1418); and delegation of authority at 49 CFR 1.50)

[49 FR 4760, Feb. 8, 1984; 49 FR 5621, Feb. 14, 1984]

IMPORTANTApproved through 5-31-85.
OMB No. 2127-0050**A**

In case of a recall, we can reach you only if we have your name and address. You **MUST** send in this card to be on our recall list.

**SHADED AREAS MUST
BE FILLED IN BY SELLER**

Do it today.

			TIRE IDENTIFICATION NUMBERS										
QTY	1	2	3	4	5	6	7	8	9	10	11		
CUSTOMER'S NAME (Please Print)													
CUSTOMER'S ADDRESS													
CITY	STATE	ZIP CODE											
NAME OF DEALER WHICH SOLD TIRE													
DEALER'S ADDRESS													
CITY	STATE	ZIP CODE											

10%
Screen
Tint

A—Preprinted tire manufacturer's name—unless the manufacturer's name appears on reverse side of the form.

Figure 3a—Registration form for independent distributors and dealers—the identification number side

487

Affix a
postcard
stamp

Name and address of
tire manufacturer or
its designee
(Preprinted)

Figure 3b—Registration form for independent distributors and dealers—address side

488

3 1/4" ± 1/8"
7 3/8" ± 1/8"

**IMPORTANT: FEDERAL LAW REQUIRES
TIRE IDENTIFICATION NUMBERS MUST
BE REGISTERED.**

(PLEASE PRINT)

CUSTOMER'S NAME _____

ADDRESS _____

CITY _____ STATE ZIP _____

DATE FLEET VEHICLE NO. (OPTIONAL) _____

SELLERS NAME AND/OR MANUFACTURER SELLER NUMBER _____

ADDRESS _____

CITY _____ STATE ZIP _____

RETURN TO _____

**(A) PREPRINTED TIRE MANUFACTURERS'
LOGO OR OTHER IDENTIFICATION
AND MAILING ADDRESS**

**(B) MICROFILM NUMBER
LOCATION IF NECESSARY**

**A-B AREAS TO SUIT TIRE
MANUFACTURERS
REQUIREMENTS**

FIG. 4 - UNIVERSAL FORMAT

BEST COPY AVAILABLE

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§ 574.8 Information requirements—tire distributors and dealers.

(a) *Independent distributors and dealers.* (1) Each independent distributor and each independent dealer selling or leasing new tires to tire purchasers or lessors (hereinafter referred to in this section as "tire purchasers") shall provide each tire purchaser at the time of sale or lease of the tire(s) with a tire registration form.

(2) The distributor or dealer may use either the registration forms provided by the tire manufacturers pursuant to § 574.7(a) or registration forms obtained from another source. Forms obtained from other sources shall comply with the requirements specified in § 574.7(a) for forms provided by tire manufacturers to independent distributors and dealers.

(3) Before giving the registration form to the tire purchaser, the distributor or dealer shall record in the appropriate spaces provided on that form:

(A) The entire tire identification number of the tire(s) sold or leased to the tire purchaser, and

(B) The distributor's or dealer's name and address or other means of identification known to the tire manufacturer.

(4) Multiple tire purchases or leases by the same tire purchaser may be recorded on a single registration form.

(b) *Other distributors and dealers.*

(1) Each distributor and each dealer, other than an independent distributor or dealer, selling new tires to tire purchasers shall submit the information specified in § 574.4(a)(4) to the manufacturer of the tires sold, or to its designee.

(2) Each tire distributor and each dealer, other than an independent distributor or dealer, shall submit registration forms containing the information specified in § 574.7(a)(4) to the tire manufacturer, or person maintaining the information, not less often than every 30 days. However, a distributor or dealer which sells less than 40 tires, of all makes, types and sizes during a 30-day period may wait until he or she sells a total of 40 new tires, but in no event longer than six months, before forwarding the tire in-

formation to the respective tire manufacturers or their designees.

(c) Each distributor and each dealer selling new tires to other tire distributors or dealers shall supply to the distributor or dealer a means to record the information specified in § 574.7(a)(4), unless such a means has been provided to that distributor or dealer by another person or by a manufacturer.

(d) Each distributor and each dealer shall immediately stop selling any group of tires when so directed by a notification issued pursuant to sections 151 and 152 of the Act (15 U.S.C. 1411 and 1412).

(Secs. 108, 119, and 201, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407, and 1421); sec. 4, Pub. L. 97-311, 96 Stat. 1619 (15 U.S.C. 1418); and delegation of authority at 49 CFR 1.50)

[49 FR 4761, Feb. 8, 1994]

§ 574.9 Requirements for motor vehicle dealers.

(a) Each motor vehicle dealer who sells a used motor vehicle for purposes other than resale, who leases a motor vehicle for more than 60 days, that is equipped with new tires is considered, for purposes of this part, to be a tire dealer and shall meet the requirements specified in § 574.8.

(b) Each person selling a motor vehicle to first purchasers for purposes other than resale, that is equipped with new tires that were not on the motor vehicle when shipped by the vehicle manufacturer is considered a tire dealer for purposes of this part and shall meet the requirements specified in § 574.8.

(Secs. 103, 108, 112, 119, 201, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1397, 1401, 1407, 1421); secs. 102, 103, 104, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1411-1420); 92 Stat. 2689 (15 U.S.C. 1418); delegation of authority at 49 CFR 1.51)

[44 FR 7964, Feb. 8, 1979]

§ 574.10 Requirements for motor vehicle manufacturers.

Each motor vehicle manufacturer, or his designee, shall maintain a record of the new tires on or in each vehicle shipped by him or a motor vehicle distributor or dealer, and shall maintain

a record of the name and address of the first purchaser for purposes other than resale of each vehicle equipped with such tires. These records shall be maintained for a period of not less than 3 years from the date of sale of the vehicle to the first purchaser for purposes other than resale.

(Secs. 103, 104, 112, 119, 201, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1397, 1401, 1407, 1421); sec. 103, 104, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1411-1420); 92 Stat. 2699 (15 U.S.C. 1418); delegation of authority at 49 CFR 1.51)

[44 FR 7994, Feb. 8, 1979]

PART 575—CONSUMER INFORMATION REGULATIONS

Subpart A—General

Sec.

- 575.1 Scope.
- 575.2 Definitions.
- 575.3 Matter incorporated by reference.
- 575.4 Application.
- 575.5 Separability.
- 575.6 Requirements.
- 575.7 Special vehicles.

Subpart B—Consumer Information Items

- 575.101 Vehicle stopping distance.
- 575.102 [Reserved]
- 575.103 Truck-camper loading.
- 575.104 Uniform tire quality grading standards.
- 575.105 Utility vehicles.

AUTHORITY: Secs. 103, 112, 119, 201, 203, Pub. L. 89-563, 80 Stat. 718, 725, 728; 15 U.S.C. 1392, 1401, 1407, 1421, 1423; delegation of authority at 49 CFR 1.51 and secretary's delegation of authority at 49 CFR 1.4(c), unless otherwise noted.

EDITORIAL NOTE: Interpretation of availability requirements issued by NHTSA and published at 36 FR 24004, Dec. 17, 1971 provides as follows:

"The purpose of this interpretive notice is to provide that the requirement that copies of consumer information be made available for retention by prospective purchasers, or sent by mail at such a purchaser's request, does not apply to vehicles no longer in production on January 1, 1972, the effective date of the requirement.

In response to the 1970 amendment of the National Traffic and Motor Vehicle Safety Act (Public Law 91-625, 84 Stat. 362), the NHTSA issued on October 2, 1971 (36 FR 19310) an amendment to the Consumer Information regulations, effective January 1, 1972, that requires information compiled by

manufacturers to be available for retention by prospective purchasers, or for mailing to them, in addition to the previous requirement that such information be available for inspection by such purchasers at locations where new vehicles are sold. The amendment provides that the information be available for retention or mailing for "each vehicle offered for sale" by persons having certain legal relationships with the manufacturer.

It has been brought to the agency's attention that some manufacturers and dealers still have new vehicles of previous model years available for sale for which retention copies have never been or are no longer available. It is recognized that the cost of producing new information for these older vehicles would probably outweigh the benefits to consumers.

Accordingly, the October 2 amendment concerning availability of consumer information for retention and mailing will be considered effective only with respect to vehicle models that are produced or in production on or after January 1, 1972.

This notice is issued pursuant to sections 112 and 119 of the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1401, 1407), and the delegation of authority at 49 CFR 1.51."

Subpart A—General

SOURCE: 35 FR 6867, Apr. 30, 1970, unless otherwise noted.

§ 575.1 Scope.

This part contains Federal Motor Vehicle Consumer Information Regulations established under section 112(d) of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1401(d)) (hereinafter "the Act").

§ 575.2 Definitions.

(a) **Statutory definitions.** All terms used in this part that are defined in section 102 of the Act are used as defined in the Act.

(b) **Motor Vehicle Safety Standard definitions.** Unless otherwise indicated, all terms used in this part that are defined in the Motor Vehicle Safety Standards, Part 571 of this subchapter (hereinafter "the Standards"), are used as defined in the Standards without regard to the applicability of a standard in which a definition is contained.

(c) **Definitions used in this part.**

"Brake power unit" means a device installed in a brake system that provides the energy required to actuate the brakes, either directly or indirectly through an auxiliary device, with the operator action consisting only of modulating the energy application level.

"Lightly loaded vehicle weight" means:

(1) For a passenger car, unloaded vehicle weight plus 300 pounds (including driver and instrumentation), with the added weight distributed in the front seat area.

(2) For a motorcycle, unloaded vehicle weight plus 200 pounds (including driver and instrumentation), with added weight distributed on the saddle and in saddle bags or other carrier.

"Maximum loaded vehicle weight" is used as defined in Standard No. 110.

"Maximum sustained vehicle speed" means that speed attainable by accelerating at maximum rate from a standing start for 1 mile.

"Skid number" means the frictional resistance measured in accordance with American Society for Testing and Materials Method E-274 at 40 miles per hour, omitting water delivery as specified in paragraph 7.1 of that Method.

[35 FR 6867, Apr. 30, 1970, as amended at 38 FR 5339, Feb. 28, 1973; 48 FR 44081, Sept. 27, 1983]

§ 575.3 Matter incorporated by reference.

The incorporation by reference provisions of § 571.5 of this subchapter apply to this part.

§ 575.4 Application.

(a) *General.* Except as provided in paragraphs (b) through (d) of this section, each section set forth in Subpart B of this part applies according to its terms to motor vehicles and tires manufactured after the effective date indicated.

(b) *Military vehicles.* This part does not apply to motor vehicles or tires sold directly to the Armed Forces of the United States in conformity with contractual specifications.

(c) *Export.* This part does not apply to motor vehicles or tires intended solely for export and so labeled or tagged.

(d) *Import.* This part does not apply to motor vehicles or tires imported for purposes other than resale.

[30 FR 1039, Jan. 4, 1974]

§ 575.5 Separability.

If any section established in this part or its application to any person or circumstances is held invalid, the remainder of the part and the application of that section to other persons or circumstances is not affected thereby.

§ 575.6 Requirements.

(a) At the time a motor vehicle is delivered to the first purchaser for purposes other than resale, the manufacturer of that vehicle shall provide to that purchaser, in writing and in the English language, the information specified in Subpart B of this part that is applicable to that vehicle and its tires. The document provided with a vehicle may contain more than one table, but the document must either

(1) clearly and unconditionally indicate which of the tables apply to the vehicle with which it is provided, or
(2) contain a statement on its cover referring the reader to the vehicle certification label for specific information concerning which of the tables apply to that vehicle. If the manufacturer chooses option (a)(2) of this section, the vehicle certification label shall include such specific information.

EXAMPLE 1. Manufacturer X furnishes a document containing several tables, which apply to various groups of vehicles that it produces. The document contains the following notation on its front page: "The information that applies to this vehicle is contained in Table 5." The notation satisfies the requirement.

EXAMPLE 2. Manufacturer Y furnishes a document containing several tables as in Example 1, with the following notation on its front page:

Information applies as follows:
Model P, 6-cylinder engine—Table 1.
Model P, 8-cylinder engine—Table 2.
Model Q—Table 3.

This notation does not satisfy the requirement, since it is conditioned on the model or the equipment of the vehicle with which the document is furnished, and therefore additional information is required to select the proper table.

(b) At the time a motor vehicle tire is delivered to the first purchaser for a purpose other than resale, the manufacturer of that tire, or in the case of a tire marketed under a brand name, the brand name owner, shall provide to that purchaser the information specified in Subpart B of this part that is applicable to that tire.

(c) Each manufacturer of motor vehicles, each brand name owner of tires, and each manufacturer of tires for which there is no brand name owner shall provide for examination by prospective purchasers, at each location where its vehicles or tires are offered for sale by a person with whom the manufacturer or brand name owner has a contractual, proprietary, or other legal relationship, or by a person who has such a relationship with a distributor of the manufacturer or brand name owner concerning the vehicle or tire in question, the information specified in Subpart B of this part that is applicable to each of the vehicles or tires offered for sale at that location. The information shall be provided without charge and in sufficient quantity to be available for retention by prospective purchasers or sent by mail to a prospective purchaser upon his request. With respect to newly introduced vehicles or tires, the information shall be provided for examination by prospective purchasers not later than the day on which the manufacturer or brand name owner first authorizes those vehicles or tires to be put on general public display and sold to consumers.

(d)(1)(i) Except as provided in paragraph (d)(1)(ii) of this section, in the case of all sections of Subpart B, other than § 575.104, as they apply to information submitted prior to new model introduction, each manufacturer of motor vehicles shall submit to the Administrator 10 copies of the information specified in Subpart B of this part that is applicable to the vehicles offered for sale, at least 90 days before it is first provided for examination by prospective purchasers pursuant to paragraph (c) of this section.

(ii) Where an unforeseen preintroduction modification in vehicle design or equipment results in a change in vehicle performance for a characteristic

included in Subpart B of this part, a manufacturer of motor vehicles may revise information previously furnished under paragraph (d)(1)(i) of this section by submission to the Administrator of 10 copies of revised information reflecting the performance changes, at least 30 days before information on the subject vehicles is first provided to prospective purchasers pursuant to paragraph (c) of this section.

(2) In the case of § 575.104, and all other sections of Subpart B as they apply to post-introduction changes in information submitted for the current model year, each manufacturer of motor vehicles, each brand name owner of tires, and each manufacturer of tires for which there is no brand name owner shall submit to the Administrator 10 copies of the information specified in Subpart B of this part that is applicable to the vehicles or tires offered for sale, at least 30 days before it is first provided for examination by prospective purchasers pursuant to paragraph (c) of this section.

(Secs. 103, 112, 119; Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1401, 1407); delegation of authority at 49 CFR 1.50)

[39 FR 1039, Jan. 4, 1974, as amended at 41 FR 13923, Apr. 1, 1976; 45 FR 47153, July 14, 1980; 47 FR 7258, Feb. 18, 1982]

§ 575.7 Special vehicles.

A manufacturer who produces vehicles having a configuration not available for purchase by the general public need not make available to ineligible purchasers, pursuant to § 575.6(c), the information for those vehicles specified in Subpart B of this part, and shall identify those vehicles when furnishing the information required by § 575.6(d).

(Secs. 103, 112, 114, 203, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1401, 1407, 1423); delegation of authority at 49 CFR 1.51)

[40 FR 11727, Mar. 13, 1975]

Subpart B—Consumer Information Items

§ 575.101 Vehicle stopping distance.

(a) *Purpose and scope.* This section requires manufacturers of passenger

cars and motorcycles to provide information on vehicle stopping distances under specified speed, brake, loading, and pavement conditions.

(b) *Application.* This section applies to passenger cars and motorcycles manufactured on or after January 1, 1970.

(c) *Required information.* Each manufacturer shall furnish the information in paragraphs (c) (1) through (5) of this section, in the form illustrated in Figure 1, except that with respect to paragraphs (c) (2) and (3) of this section, a manufacturer whose total motor vehicle production does not exceed 500 annually is only required to furnish performance information for the loaded condition. Each motorcycle in the group to which the information applies shall be capable, under the conditions specified in paragraph (d) of this section, and utilizing the procedures specified in paragraph (e) of this section, of performing at least as well as the information indicates. Each passenger car in the group to which the information applies shall be capable of performing at least as well as the information indicates, under the test conditions and procedures specified in S6. and S7. of Standard No. 105 of this chapter (49 CFR 571.105) or, in the case of passenger cars manufactured before January 1, 1977, and at the option of the manufacturer, under the conditions specified in paragraph (d) of this section and the procedures specified in paragraph (e) of this section.

If a vehicle is unable to reach the speed of 60 miles per hour (m.p.h.), the maximum sustained vehicle speed shall be substituted for the 60 m.p.h. speed in the requirements specified below, and in the presentation of information as in Figure 1, with an asterisked notation in essentially the following form at the bottom of the figure: "The maximum speed attainable by accelerating at maximum rate from a standing start for 1 mile." The weight requirements indicated in paragraphs (c) (2), (3), and (4) of this section are modified for the motorcycles (and at the option of the manufacturer, in the case of passenger car manufactured before January 1, 1977) by

the fuel tank condition specified in paragraph (d)(4) of this section.

(1) *Vehicle description.* The group of vehicles to which the table applies, identified in the terms by which they are described to the public by the manufacturer.

(2) *Minimum stopping distance with fully operational service brake system.* The minimum stopping distance attainable, expressed in feet, from 60 mph, using the fully operational service brake system—

(i) In the case of a motorcycle, at lightly loaded and maximum loaded vehicle weight; and

(ii) In the case of a passenger car, at lightly loaded vehicle weight and at gross vehicle weight rating (GVWR), except for a passenger car manufactured before January 1, 1977, and tested, at the option of the manufacturer, under the conditions and procedures of paragraphs (d) and (e) of this section, which passenger car shall be tested at lightly loaded vehicle weight and at maximum loaded vehicle weight.

(3) *Minimum stopping distance with partially failed service brake system.* (Applicable only to passenger cars with more than one service brake subsystem.) The minimum stopping distance attainable using the service brake control, expressed in feet, from 60 mph, for the most adverse combination of GVWR or lightly loaded vehicle weight and partial failure as specified in S5.1.2 of Standard No. 105 of this chapter. However, a passenger car manufactured before January 1, 1977, and tested, at the option of the manufacturer, under the conditions and procedures of paragraphs (d) and (e) of this section, shall be tested at maximum loaded vehicle weight instead of GVWR.

(4) *Minimum stopping distance with inoperative brake power assist unit or brake power unit.* (Applicable only to passenger cars equipped with brake power assist unit or brake power unit.) The minimum stopping distance, expressed in feet, from 60 mph, using the service brake system, tested in accordance with the requirements of S5.1.3 of Standard No. 105 of this chapter. However, in the case of a passenger car manufactured before Janu-

ary 1, 1977, vehicle loading may, at the option of the manufacturer, be maximum loaded vehicle weight in place of the GVWR loading specified under S5.1.3 of Standard No. 105.

(5) *Notice.* The following notice: "This figure indicates braking performance that can be met or exceeded by the vehicles to which it applies, under different conditions of loading and with partial failures of the braking system. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions."

(d) *Conditions.* The data provided in the format of Figure 1 shall represent a level of performance that can be equaled or exceeded by each vehicle in

the group to which the table applies, under the following conditions, utilizing the procedures set forth in paragraph (e) of this section.

(1) Stops are made without lockup of any wheel, except for momentary lockup caused by an automatic skid control device.

(2) The tire inflation pressure and other relevant component adjustments of the vehicle are made according to the manufacturer's published recommendations.

(3) For passenger cars, brake pedal force does not exceed 150 pounds for any brake application. For motorcycles, hand brake lever force applied 1½ inches from the outer end of the lever does not exceed 55 pounds, and foot brake pedal force does not exceed 90 pounds.

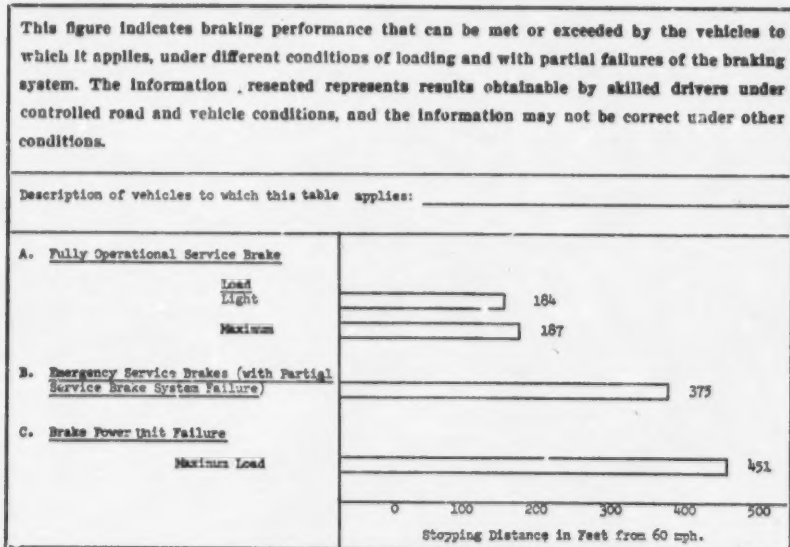


FIGURE 1

(4) Fuel tank is filled to any level between 90 and 100 percent of capacity.

(5) Transmission is in neutral, or the clutch disengaged, during the entire deceleration.

(6) The vehicle begins the deceleration in the center of a straight roadway lane that is 12 feet wide, and remains in the lane throughout the deceleration.

(7) The roadway lane has a grade of zero percent, and the road surface has a skid number of 81, as measured in accordance with American Society for Testing and Materials (ASTM) Method E-274-70 (as revised July, 1974) at 40 mph, omitting the water delivery specified in paragraphs 7.1 and 7.2 of that method.

(8) All vehicle openings (doors, windows, hood, trunk, convertible tops, etc.) are in the closed position except as required for instrumentation purposes.

(9) Ambient temperature is between 32° F. and 100° F.

(10) Wind velocity is zero.

(e) *Procedures.* (1) *Burnish.*

(i) *Passenger cars.* Burnish brakes once prior to first stopping distance test by conducting 200 stops from 40 m.p.h. (or maximum sustained vehicle speed if the vehicle is incapable of reaching 40 m.p.h.) at a deceleration rate of 12 f.p.s.p.s. in normal driving gear, with a cooling interval between stops, accomplished by driving at 40 m.p.h. for a sufficient distance to reduce brake temperature to 250° F., or for 1 mile, whichever occurs first. Readjust brakes according to manufacturer's recommendations after burnishing.

(ii) *Motorcycles.* Adjust and burnish brakes in accordance with manufacturer's recommendations. Where no burnishing procedures have been recommended by the manufacturer, follow the procedure specified above for passenger cars, except substitute 30 m.p.h. for 40 m.p.h., and 150° F. and 250° F. and maintain hand lever force to foot lever force ratio of approximately 1 to 2.

(2) Insure that the temperature of the hottest service brake is between 130° F. and 150° F. prior to the start of all stops (other than burnishing stops), as measured by plug-type thermocouples installed according to SAE Recommended Practice J843a, June 1966.

(3) Measure the stopping distance as specified in paragraphs (c) (2), (3), and (4) of this section from the point of application of force to the brake control to the point at which the vehicle reaches a full stop.

[54 FR 8113, May 23, 1969, as amended at 34 FR 18865, Nov. 26, 1969. Redesignated at 35 FR 5118, Mar. 26, 1970, and amended at 35 FR 6867, Apr. 30, 1970; 41 FR 1067, Jan. 6, 1976; 41 FR 24593, June 17, 1976; 41 FR 34607, Aug. 10, 1976]

§ 575.102 [Reserved]

§ 575.103 *Truck-camper loading.*

(a) *Scope.* This section requires manufacturers of trucks that are capable of accommodating slide-in campers to provide information on the cargo weight rating and the longitudinal limits within which the center of gravity for the cargo weight rating should be located.

(b) *Purpose.* The purpose of this section is to provide information that can be used to reduce overloading and improper load distribution in truck-camper combinations, in order to prevent accidents resulting from the adverse effects of these conditions on vehicle steering and braking.

(c) *Application.* This section applies to trucks that are capable of accommodating slide-in campers.

(d) *Definitions.* "Camper" means a structure designed to be mounted in the cargo area of a truck, or attached to an incomplete vehicle with motive power, for the purpose of providing shelter for persons.

"Cargo weight rating" means the value specified by the manufacturer as the cargo-carrying capacity, in pounds, of a vehicle, exclusive of the weight of occupants, computed as 150 pounds times the number of designated seating positions.

"Slide-in camper" means a camper having a roof, floor, and sides, designed to be mounted on and removable from the cargo area of a truck by the user.

(e) *Requirements.* Except as provided in paragraph (f) of this section each manufacturer of a truck that is capable of accommodating a slide-in camper shall furnish the information specified in paragraphs (e) (1) through (5) of this section.

(1) A picture showing the manufacturer's recommended longitudinal center of gravity zone for the cargo weight rating in the form illustrated in Figure 1. The boundaries of the

zone shall be such that when a slide-in camper equal in weight to the truck's cargo weight rating is installed, no gross axle weight rating of the truck is exceeded. Until October 1, 1973, the phrase "Aft End of Cargo Area" may be used in Figure 1 instead of "Rear End of Truck Bed".

(2) The truck's cargo weight rating.

(3) The statements: "When the truck is used to carry a slide-in camper, the total cargo load of the truck consists of the manufacturer's camper weight figure, the weight of installed additional camper equipment not included in the manufacturer's camper weight figure, the weight of camper cargo, and the weight of passengers in the camper. The total cargo load should not exceed the truck's cargo weight rating and the camper's center of gravity should fall within the truck's recommended center of gravity zone when installed." Until October 1, 1973, the phrase "total load" may be used instead of "total cargo load".

(4) A picture showing the proper match of a truck and slide-in camper in the form illustrated in Figure 2.

(5) The statements: "Secure loose items to prevent weight shifts that could affect the balance of your vehicle. When the truck camper is loaded, drive to a scale and weight on the front and on the rear wheels separately to determine axle loads. Individual axle loads should not exceed either of the gross axle weight ratings (GAWR). The total of the axle loads should not exceed the gross vehicle weight rating (GVWR). These ratings are given on the vehicle certification label that is located on the left side of the vehicle, normally the dash, hinge pillar, door latch post, or door edge next to the driver. If weight ratings are exceeded, move or remove items to bring all weights below the ratings."

(f) If a truck would accommodate a slide-in camper but the manufacturer of the truck recommends that the truck not be used for that purpose, the information specified in paragraph (e) of this section shall not be provided but instead the manufacturer shall provide a statement that the truck should not be used to carry a slide-in camper.



FIGURE 1. TRUCK LOADING INFORMATION

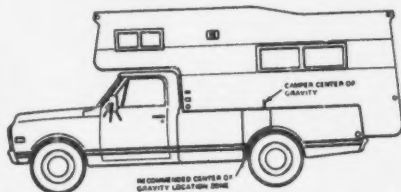


FIGURE 2. EXAMPLE OF PROPER TRUCK AND CAMPER MATCH

[37 FR 26608, Dec. 14, 1972, as amended at 38 FR 4401, Feb. 14, 1973]

§ 575.104 Uniform tire quality grading standards.

(a) *Scope.* This section requires motor vehicle and tire manufacturers and tire brand name owners to provide information indicating the relative performance of passenger car tires in the areas of treadwear, traction, and temperature resistance.

(b) *Purpose.* The purpose of this section is to aid the consumer in making an informed choice in the purchase of passenger car tires.

(c) *Application.* (1) This section applies to new pneumatic tires for use on passenger cars. However, this section does not apply to deep tread, winter-type snow tires, space-saver or temporary use spare tires, tires with nominal rim diameters of 10 to 12 inches, or to limited production tires as defined in paragraph (c)(2) of this section.

(2) "Limited production tire" means a tire meeting all of the following criteria, as applicable:

(i) The annual domestic production or importation into the United States by the tire's manufacturer of tires of

the same design and size as the tire does not exceed 15,000 tires;

(ii) In the case of a tire marketed under a brand name, the annual domestic purchase or importation into the United States by a brand name owner of tires of the same design and size as the tire does not exceed 15,000 tires;

(iii) The tire's size was not listed as a vehicle manufacturer's recommended tire size designation for a new motor vehicle produced in or imported into the United States in quantities greater than 10,000 during the calendar year preceding the year of the tire's manufacture; and

(iv) The total annual domestic production or importation into the United States by the tire's manufacturer, and in the case of a tire marketed under a brand name, the total annual domestic purchase or purchase for importation into the United States by the tire's brand name owner, of tires meeting the criteria of paragraphs (c)(2) (i), (ii), and (iii) of this section, does not exceed 35,000 tires.

Tire design is the combination of general structural characteristics, materials, and tread pattern, but does include cosmetic, identifying or other minor variations among tires.

(d) *Requirements*—(1) *Information*. (i) Each manufacturer of tires, or in the case of tires marketed under a brand name, each brand name owner, shall provide grading information for each tire of which he is the manufacturer or brand name owner in the manner set forth in paragraphs (d)(1)(i) (A) and (B) of this section. The grades for each tire shall be only those specified in paragraph (d)(2) of this section. Each tire shall be able to achieve the level of performance represented by each grade with which it is labeled. An individual tire need not, however, meet further requirements after having been subjected to the test for any one grade.

(A) Except for a tire of a new tire line, manufactured within the first six months of production of the tire line, each tire shall be graded with the words, letters, symbols, and figures specified in paragraph (d)(2) of this section, permanently molded into or onto the tire sidewall between the

tire's maximum section width and shoulder in accordance with one of the methods described in Figure 1. For purposes of this paragraph, new tire line shall mean a group of tires differing substantially in construction, materials, or design from those previously sold by the manufacturer or brand name owner of the tires. As used in this paragraph, the term "construction" refers to the internal structure of the tire (e.g., cord angles, number and placement of breakers), "materials" refers to the substances used in manufacture of the tire (e.g., belt fiber, rubber compound), and "design" refers to properties or conditions imposed by the tire mold (e.g., aspect ratio, tread pattern).

(B)(1) Each tire manufactured before April 1, 1982, other than a tire sold as original equipment on a new vehicle, shall have affixed to its tread surface in a manner such that it is not easily removable a label containing its grades and other information in the form illustrated in Figure 2, Part II, bearing the heading "DOT QUALITY GRADES." The treadwear grade attributed to the tire shall be either imprinted or indelibly stamped on the label adjacent to the description of the treadwear grade. The label shall also depict all possible grades for traction and temperature resistance. The traction and temperature resistance performance grades attributed to the tire shall be indelibly circled. However, each tire labeled in conformity with the requirements of paragraph (d)(1)(i)(B)(2) of this section need not comply with the provisions of this paragraph.

(2) Each tire manufactured on or after April 1, 1982, other than a tire sold as original equipment on a new vehicle, shall have affixed to its tread surface so as not to be easily removable a label or labels containing its grades and other information in the form illustrated in Figure 2, Parts I and II. The treadwear grade attributed to the tire shall be either imprinted or indelibly stamped on the label containing the material in Part I of Figure 2, directly to the right of or below the word "TREADWEAR". The traction and temperature resistance performance grades attributed to the

tire shall be indelibly circled in an array of the potential grade letters (ABC) directly to the right of or below the words "TRACTION" and "TEMPERATURE" in Part I of Figure 2. The words "TREADWEAR," "TRACTION," and "TEMPERATURE," in that order, may be laid out vertically or horizontally. The text of Part II of Figure 2 may be printed in capital letters. The text of Part I and the text of Part II of Figure 2 need not appear on the same label, but the edges of the two texts must be positioned on the tire tread so as to be separated by a distance of no more than one inch. If the text of Part I and the text of Part II are placed on separate labels, the notation "See EXPLANATION OF DOT QUALITY GRADES" shall be added to the bottom of the Part I text, and the words "EXPLANATION OF DOT QUALITY GRADES" shall appear at the top of the Part II text. The text of Figure 2 shall be oriented on the tire tread surface with lines of type running perpendicular to the tread circumference. If a label bearing a tire size designation is attached to the tire tread surface and the tire size designation is oriented with lines of type running perpendicular to the tread circumference, the text of Figure 2 shall read in the same direction as the tire size designation.

(ii) In the case of information required in accordance with § 575.6(c) to be furnished to prospective purchasers of motor vehicles and tires, each vehicle manufacturer and each tire manufacturer or brand name owner shall as part of that information list all possible grades for traction and temperature resistance, and restate verbatim the explanations for each performance area specified in Figure 2. The information need not be in the same format as in Figure 2. In the case of a tire manufacturer or brand name owner, the information must indicate clearly and unambiguously the grade in each performance area for each tire of that manufacturer or brand name owner offered for sale at the particular location.

(iii) In the case of information required in accordance with § 575.6(a) to be furnished to the first purchaser of a new motor vehicle, other than a

motor vehicle equipped with bias-ply tires manufactured prior to October 1, 1979, and a motor vehicle equipped with bias-belted tires manufactured prior to April 1, 1980, and a motor vehicle equipped with radial-ply tires manufactured prior to October 1, 1980, each manufacturer of motor vehicles shall as part of the information list all possible grades for traction and temperature resistance and restate verbatim the explanation for each performance area specified in figure 2. The information need not be in the format of figure 2, but it must contain a statement referring the reader to the tire sidewall for the specific tire grades for the tires with which the vehicle is equipped.

(2) *Performance*—(i) *Treadwear*. Each tire shall be graded for treadwear performance with the word "TREADWEAR" followed by a number of two or three digits representing the tire's grade for treadwear, expressed as a percentage of the NHTSA nominal treadwear value, when tested in accordance with the conditions and procedures specified in paragraph (e) of this section. Treadwear grades shall be multiples of 10 (e.g., 80, 150).

(ii) *Traction*. Each tire shall be graded for traction performance with the word "TRACTION" followed by the symbols C, B, or A, when the tire is tested in accordance with the conditions and procedures specified in paragraph (f) of this section.

(A) The tire shall be graded C when the adjusted traction coefficient is either:

(1) 0.38 or less when tested in accordance with paragraph (f)(2) of this section on the asphalt surface specified in paragraph (f)(1)(i) of this section, or

(2) 0.26 or less when tested in accordance with paragraph (f)(2) of this section on the concrete surface specified in paragraph (f)(1)(i) of this section.

(B) The tire may be graded B only when its adjusted traction coefficient is both:

(1) More than 0.38 when tested in accordance with paragraph (f)(2) of this section on the asphalt surface

specified in paragraph (f)(1)(i) of this section, and

(2) More than 0.26 when tested in accordance with paragraph (f)(2) of this section on the concrete surface specified in paragraph (f)(1)(i) of this section.

(C) The tire may be graded A only when its adjusted traction coefficient is both:

(1) More than 0.47 when tested in accordance with paragraph (f)(2) of this section on the asphalt surface specified in paragraph (f)(1)(i) of this section, and

(2) More than 0.35 when tested in accordance with paragraph (f)(2) of this section on the concrete surface specified in paragraph (f)(1)(i) of this section.

(iii) *Temperature resistance.* Each tire shall be graded for temperature resistance performance with the word "TEMPERATURE" followed by the letter A, B, or C, based on its performance when the tire is tested in accordance with the procedures specified in paragraph (g) of this section. A tire shall be considered to have successfully completed a test stage in accordance with this paragraph if, at the end of the test stage, it exhibits no visual evidence of tread, sidewall, ply, cord, innerliner, or bead separation, chunking, broken cords, cracking or open splices as defined in § 571.109 of this chapter, and the tire pressure is not less than the pressure specified in paragraph (g)(1) of this section.

(A) The tire shall be graded C if it fails to complete the 500 rpm test stage specified in paragraph (g)(9) of this section.

(B) The tire may be graded B only if it successfully completes the 500 rpm test stage specified in paragraph (g)(9) of this section.

(C) The tire may be graded A only if it successfully completes the 575 rpm test stage specified in paragraph (g)(9) of this section.

(e) *Treadwear grading conditions and procedures—(1) Conditions.* (i) Tire treadwear performance is evaluated on a specific roadway course approximately 400 miles in length, which is established by the NHTSA both for its own compliance testing and for that of regulated persons. The course

is designed to produce treadwear rates that are generally representative of those encountered in public use for tires of differing construction types. The course and driving procedures are described in Appendix A to this section.

(ii) Treadwear grades are evaluated by first measuring the performance of a candidate tire on the government test course, and then correcting the projected mileage obtained to account for environmental variations on the basis of the performance of course monitoring tires of the same general construction type (bias, bias-belted, or radial) run in the same convoy. The three types of course monitoring tires are made available by the NHTSA at Goodfellow Air Force Base, San Angelo, Tex., for purchase by any persons conducting tests at the test course.

(iii) In convoy tests each vehicle in the same convoy, except for the lead vehicle, is throughout the test within human eye range of the vehicle immediately ahead of it.

(iv) A test convoy consists of no more than four passenger cars, each having only rear-wheel drive.

(v) On each convoy vehicle, all tires are mounted on identical rims of design or measuring rim width specified for tires of that size in accordance with 49 CFR 571.109, S4.4.1 (a) or (b), or a rim having a width within -0 to +0.50 inches of the width listed.

(2) *Treadwear grading procedure.* (i) Equip a convoy with course monitoring and candidate tires of the same construction type. Place four course monitoring tires on one vehicle. On each other vehicle, place four candidate tires with identical size designations. On each axle, place tires that are identical with respect to manufacturer and line.

(ii) Inflate each candidate and each course monitoring tire to the applicable pressure specified in Table 1 of this section.

(iii) Load each vehicle so that the load on each course monitoring and candidate tire is 85 percent of the test load specified in § 575.104(h).

(iv) Adjust wheel alignment to that specified by the vehicle manufacturer.

(v) Subject candidate and course monitoring tires to "break-in" by running the tires in convoy for two circuits of the test roadway (800 miles). At the end of the first circuit, rotate each vehicle's tires by moving each front tire to the same side of the rear axle and each rear tire to the opposite side of the front axle.

(vi) After break-in, allow the tires to cool to the inflation pressure specified in paragraph (e)(2)(ii) of this section or for 2 hours, whichever occurs first. Measure, to the nearest 0.001 inch, the tread depth of each candidate and course monitoring tire, avoiding treadwear indicators, at six equally spaced points in each groove. For each tire compute the average of the measurements. Do not include those shoulder grooves which are not provided with treadwear indicators.

(vii) Adjust wheel alignment to the manufacturer's specifications.

(viii) Drive the convoy on the test roadway for 3,400 miles. After each 800 miles:

(A) Following the procedure set out in paragraph (e)(2)(vi) of this section, allow the tires to cool and measure the average tread depth of each tire;

(B) Rotate each vehicle's tires by moving each front tire to the same side of the rear axle and each rear tire to the opposite side of the front axle.

(C) Rotate the vehicles in the convoy by moving the last vehicle to the lead position. Do not rotate driver position within the convoy.

(D) Adjust the wheel alignment to the vehicle manufacturer's specifications, if necessary.

(ix) Determine the projected mileage for each candidate tire as follows:

(A) For each course monitoring and candidate tire in the convoy, using the average tread depth measurements obtained in accordance with paragraph (e)(2)(vi) of this section and the corresponding mileages as data points, apply the method of least squares as described in Appendix C to this section to determine the estimated regression line of y on x given by the following formula:

$$y = a + \frac{bx}{1000}$$

Where:

y = average tread depth in mills,

x = miles after break-in,

a = y intercept of regression line (reference tread depth) in mills, calculated using the method of least squares; and

b = the slope of the regression line in mills of tread depth per 1,000 miles, calculated using the method of least squares. This slope will be negative in value. The tire's wear rate is defined as the absolute value of the slope of the regression line.

(B) Average the wear rates of the four course monitoring tires as determined in accordance with paragraph (e)(2)(ix)(A) of this section.

(C) Determine the course severity adjustment factor by dividing the base wear rate for the course monitoring tire (see note below) by the average wear rate for the four course monitoring tires determined in accordance with paragraph (e)(2)(ix)(B) of this section.

NOTE: The base wear rates for the course monitoring tires will be furnished to the purchaser at the time of purchase.

(D) Determine the adjusted wear rate for each candidate tire by multiplying its wear rate determined in accordance with paragraph (e)(2)(ix)(A) of this section by the course severity adjustment factor determined in accordance with paragraph (e)(2)(ix)(C) of this section.

(E) Determine the projected mileage for each candidate tire using the following formula:

$$\text{Projected mileage} = \frac{1000(a - b'x)}{b'}$$

Where:

a = y intercept of regression line (reference tread depth) for the candidate tire as determined in accordance with paragraph (e)(2)(ix)(A) of this section.

b' = the adjusted wear rate for the candidate tire as determined in accordance with paragraph (e)(2)(ix)(D) of this section.

(F) Compute the percentage of the NHTSA nominal treadwear value for each candidate tire using the following formula:

$$P = \frac{\text{Projected mileage}}{36,000} \times 100$$

Round off the percentage to the nearest lower 10 percent increment.

(f) *Traction grading conditions and procedures*—(1) *Conditions*. (i) Tire traction performance is evaluated on skid pads that are established, and whose severity is monitored, by the NHTSA both for its compliance testing and for that of regulated persons. The test pavements are asphalt and concrete surfaces constructed in accordance with the specifications for pads "C" and "A" in the "Manual for the Construction and Maintenance of Skid Surfaces," National Technical Information Service No. DOT-HS-800-814. The surfaces have locked wheel traction coefficients when evaluated in accordance with paragraphs (f)(2)(i) through (f)(2)(vii) of this section of 0.50 ± 0.10 for the asphalt and 0.35 ± 0.10 for the concrete. The location of the skid pads is described in Appendix B to this section.

(ii) The standard tire is the American Society for Testing and Materials (ASTM) E 501 "Standard Tire for Pavement Skid Resistance Tests."

(iii) The pavement surface is wetted in accordance with paragraph 3.5, "Pavement Wetting System," of ASTM Method E 274-79, "Skid Resistance of Paved Surfaces Using a Full-Scale Tire."

(iv) The test apparatus is a test trailer built in conformity with the specifications in paragraph 3, "Apparatus," of ASTM Method E 274-79, and instrumented in accordance with paragraph 3.3.2 of that method, except that "wheel load" in paragraph 3.2.2 and tire and rim specifications in paragraph 3.2.3 of that method are as specified in the procedures in paragraph (f)(2) of this section for standard and candidate tires.

(v) The test apparatus is calibrated in accordance with ASTM Method F 377-74, "Standard Method for Calibration of Braking Force for Testing of

Pneumatic Tires" with the trailer's tires inflated to 24 psi and loaded to 1,085 pounds.

(vi) Consecutive tests on the same surface are conducted not less than 30 seconds apart.

(vii) A standard tire is discarded in accordance with ASTM Method E 501.

(2) *Procedure*. (i) Prepare two standard tires as follows:

(A) Condition the tires by running them for 200 miles on a pavement surface.

(B) Mount each tire on a rim of design or measuring rim width specified for tires of its size in accordance with 49 CFR 571.109, S4.4.1 (a) or (b), or a rim having a width within -0 to $+0.50$ inches of the width listed. Then inflate the tire to 24 psi, or, in the case of a tire with inflation pressure measured in kilopascals, to 180 kPa.

(C) Static balance each tire-rim combination.

(D) Allow each tire to cool to ambient temperature and readjust its inflation pressure to 24 psi, or, in the case of a tire with inflation pressure measured in kilopascals, to 180 kPa.

(ii) Mount the tires on the test apparatus described in paragraph (f)(1)(iv) of this section and load each tire to 1,085 pounds.

(iii) Tow the trailer on the asphalt test surface specified in paragraph (f)(1)(i) of this section at a speed of 40 mph, lock one trailer wheel, and record the locked-wheel traction coefficient on the tire associated with that wheel between 0.5 and 1.5 seconds after lockup.

(iv) Repeat the test on the concrete surface, locking the same wheel.

(v) Repeat the tests specified in paragraphs (f)(2) (iii) and (iv) of this section for a total of 10 measurements on each test surface.

(vi) Repeat the procedures specified in paragraphs (f)(2) (iii) through (v) of this section, locking the wheel associated with the other tire.

(vii) Average the 20 measurements taken on the asphalt surface to find the standard tire traction coefficient for the asphalt surface. Average the 20 measurements taken on the concrete surface to find the standard tire traction coefficient for the concrete surface. The standard tire traction coefficient

cient so determined may be used in the computation of adjusted traction coefficients for more than one candidate tire.

(viii) Prepare two candidate tires of the same construction type, manufacturer, line, and size designation in accordance with paragraph (f)(2)(i) of this section, mount them on the test apparatus, and test one of them according to the procedures of paragraph (f)(2)(ii) through (v) of this section, except load each tire to 85% of the test load specified in § 575.104(h). Candidate tire measurements may be

taken either before or after the standard tire measurements used to compute the standard tire traction coefficient. Take all standard tire and candidate tire measurements used in computation of a candidate tire's adjusted traction coefficient within a single three hour period. Average the 10 measurements taken on the asphalt surface to find the candidate tire traction coefficient for the asphalt surface. Average the 10 measurements taken on the concrete surface to find the candidate tire traction coefficient for the concrete surface.

(ix) Compute a candidate tire's adjusted traction coefficient for asphalt (μ_a) by the following formula:

$$(\mu_a) = \text{Measured candidate tire coefficient for asphalt} + 0.50 \\ - \text{Measured standard tire coefficient for asphalt}$$

(x) Compute a candidate tire's adjusted traction coefficient for concrete (μ_c) by the following formula:

$$\mu_c = \text{Measured candidate tire coefficient for concrete} + 0.35 \\ - \text{Measured standard tire coefficient for concrete}$$

(g) *Temperature resistance grading.*

(1) Mount the tire on a rim of design or measuring rim width specified for tires of its size in accordance with § 571.109, paragraph S4.4.1 (a) or (b) and inflate it to the applicable pressure specified in Table 1 of this section.

(2) Condition the tire-rim assembly to a temperature of 95° F for at least 3 hours.

(3) Adjust the pressure again to the applicable pressure specified in Table 1 of this section.

(4) Mount the tire-rim assembly on an axle, and press the tire tread against the surface of a flat-faced steel test wheel that is 67.23 inches in diameter and at least as wide as the section width of the tire.

(5) During the test, including the pressure measurements specified in paragraphs (g) (1) and (3) of this sec-

tion, maintain the temperature of the ambient air, as measured 12 inches from the edge of the rim flange at any point on the circumference on either side of the tire at 95° F. Locate the temperature sensor so that its readings are not affected by heat radiation, drafts, variations in the temperature of the surrounding air, or guards or other devices.

(6) Press the tire against the test wheel with a load of 88 percent of the tire's maximum load rating as marked on the tire sidewall.

(7) Rotate the test wheel at 250 rpm for 2 hours.

(8) Remove the load, allow the tire to cool to 95° F or for 2 hours, whichever occurs last, and readjust the inflation pressure to the applicable pressure specified in Table 1 of this section.

(9) Reapply the load and without interruption or readjustment of inflation pressure, rotate the test wheel at 375 rpm for 30 minutes, and then at successively higher rates in 25 rpm increments, each for 30 minutes, until the tire has run at 575 rpm for 30 minutes, or to failure, whichever occurs first.

TABLE 1.—TEST INFLATION PRESSURES

Maximum permissible inflation pressure	32 lb/ in ²	36 lb/ in ²	40 lb/ in ²	240 kPa	280 kPa	300 kPa
Pressure to be used in tests for treadwear and in determination of tire load for temperature resistance testing	24	28	32	180	220	180
Pressure to be used for all aspects of temperature resistance testing other than determination of tire load	30	34	38	220	260	220

(h) *Determination of test load.* (1) To determine test loads for purposes of paragraphs (e)(2)(iii) and (f)(2)(viii), follow the procedure set forth in paragraphs (h) (2) through (5) of this section.

(h) *Determination of test load.* (1) To determine test loads for purposes of paragraphs (e)(2)(iii), (f)(2)(viii) and (g)(6), follow the procedure set forth in paragraphs (h)(2) through (5) of this section.

(2) Determine the tire's maximum inflation pressure and maximum load rating both as specified on the tire's sidewall.

(3) Determine the appropriate multiplier corresponding to the tire's maximum inflation pressure, as set forth in Table 2.

(4) Multiply the tire's maximum load rating by the multiplier determined in paragraph (h)(3). This is the tire's calculated load.

(5) Round the product determined in paragraph (h)(4) (the calculated load)

to the nearest multiple of ten pounds or, if metric units are used, 5 kilograms. For example, 903 pounds would be rounded to 900 and 533 kilograms would be rounded to 535. This figure is the test load.

TABLE 2¹

Maximum inflation pressure	Multiplier to be used for treadwear and testing	Multiplier to be used for traction testing
32 lb/in ²	.851	.851
36 lb/in ²	.870	.787
40 lb/in ²	.883	.753
240 kPa	.888	.886
280 kPa	.887	.804
300 kPa	.886	.886

¹ Prior to July 1, 1984, the multipliers in the above table are not to be used in determining loads for the tire size designations listed below in Table 2A. For those designations, the load specifications in that table shall be used in UTOG testing during that period. These loads are the actual loads at which testing shall be conducted and should not be multiplied by the 85 percent factors specified for treadwear and traction testing.

TABLE 2A

Tire size designation	Temp resistance			Traction	Treadwear		
	Max pressure				Max pressure		
	32	36	40		32	36	40
145/70 R13.....	615	660	685	523	523	553	582
155/70 R13.....	705	740	780	589	589	620	663
165/70 R13.....	795	835	880	678	678	710	748
175/70 R13.....	880	935	980	757	757	795	833
185/70 R13.....	980	1040	1080	842	842	884	928
195/70 R13.....	1100	1155	1210	935	935	982	1029
155/70 R14.....	740	780	815	629	629	663	693
175/70 R14.....	825	875	1025	768	768	829	871
185/70 R14.....	1045	1100	1155	888	888	935	982
195/70 R14.....	1155	1220	1280	982	982	1037	1088
155/70 R15.....	770	810	850	655	655	688	723
165/70 R15.....	880	1040	1080	842	842	884	927
185/70 R15.....	1100	1155	1210	935	935	982	1029
5.00-13.....	725	810	880	618	618	688	748
5.20-14.....	685	785	855	581	581	657	727
185-15.....	915	1,015	1,105	779	779	883	938
185/80 R 13.....	845	915	980	719	719	778	833

(i) *Effective dates for treadwear grading requirements for radial tires.*

(1) Treadwear labeling requirements of § 575.104(d)(1)(i)(B)(2) apply to tires manufactured on or after April 1, 1985.

(2) Requirements for NHTSA review of treadwear information in consumer brochures, as specified in § 575.6(d)(2), are effective April 1, 1985.

(3) Treadwear consumer information brochure requirements of § 575.6(c) are effective May 1, 1985.

(4) Treadwear sidewall molding requirements of § 575.104(d)(1)(i)(A) apply to tires manufactured on or after September 1, 1985.

(j) *Effective dates for treadwear grading requirements for bias ply tires.*

(1) Treadwear labeling requirements of § 575.104(d)(1)(i)(B)(2) apply to tires manufactured on or after December 15, 1984.

(2) Requirements for NHTSA review of treadwear information in consumer brochures, as specified in § 575.6(d)(2), are effective December 15, 1984.

(3) Treadwear consumer information brochure requirements of § 575.6(c) are effective January 15, 1985.

(4) Treadwear sidewall molding requirements of § 575.104(d)(1)(i)(A) apply to tires manufactured on or after May 15, 1985.

(k) *Effective dates for treadwear grading requirements for bias belted tires.*

(1) Treadwear labeling requirements of § 575.104(d)(1)(i)(B)(2) apply to tires manufactured on or after March 1, 1985.

(2) Requirements for NHTSA review of treadwear information in consumer brochures, as specified in § 575.6(d)(2), are effective March 1, 1985.

(3) Treadwear consumer information brochure requirements of § 575.6(c) are effective April 1, 1985.

(4) Treadwear sidewall molding requirements of § 575.104(d)(1)(i)(A) apply to tires manufactured on or after August 1, 1985.

(l) *Effective date for treadwear information requirements for vehicle manufacturers.* Vehicle manufacturer treadwear information requirements of §§ 575.6(a) and 575.104(d)(1)(iii) are effective September 1, 1985.

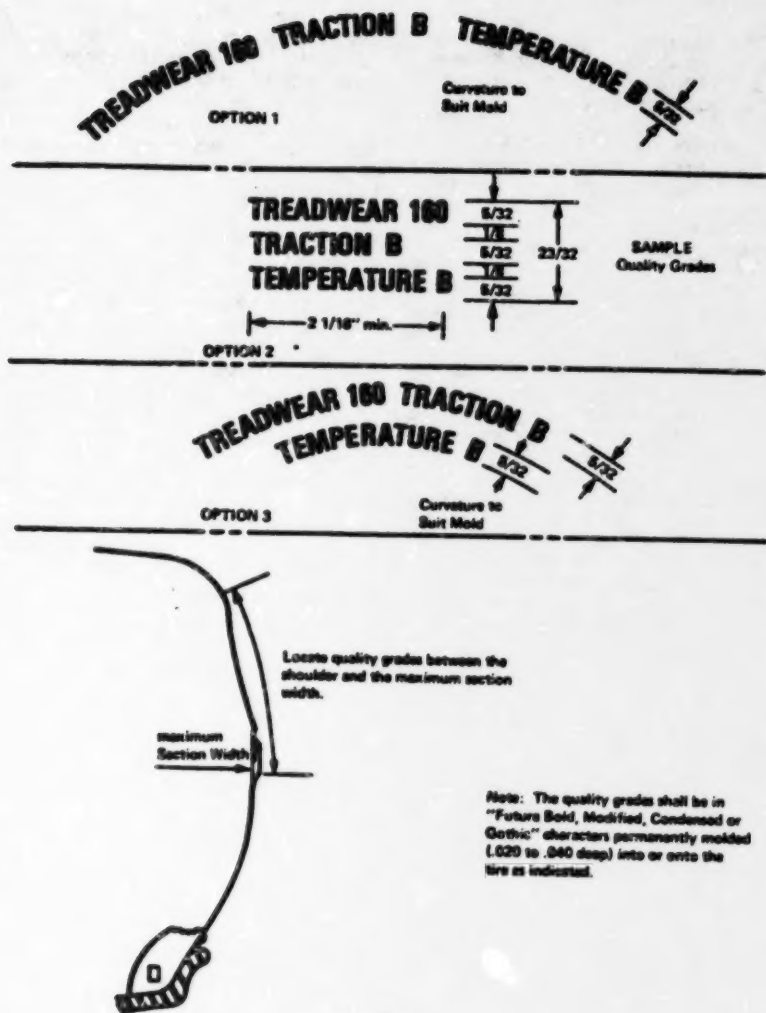


FIGURE 1

FIGURE 2—(PART I)—DOT QUALITY GRADES

TREADWEAR
TRACTION ABC
TEMPERATURE ABC

[PART II] ALL PASSENGER CAR TIRES MUST CONFORM TO FEDERAL SAFETY REQUIREMENTS IN ADDITION TO THESE GRADES

TREADWEAR

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1½) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

TRACTION

The traction grades, from highest to lowest, are A, B, and C, and they represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance. Warning: The traction grade assigned to this tire is based on braking (straightahead) traction tests and does not include cornering (turning) traction.

TEMPERATURE

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law. Warning: The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

APPENDIX A—TREADWEAR TEST COURSE AND DRIVING PROCEDURES

Introduction. The test course consists of three loops of a total of 400 miles in the

geographical vicinity of Goodfellow AFB, San Angelo, Tex.

The first loop runs south 143 miles through the cities of Eldorado, Sonora, and Juno, Tex. to the Camp Hudson Historical Marker, and returns by the same route.

The second loop runs east over Farm and Ranch Roads (FM) and returns to its starting point.

The third loop runs northwest to Water Valley, northeast toward Robert Lee and returns via Texas 208 to the vicinity of Goodfellow AFB.

Route. The route is shown in figure 3. The table identifies key points by number. These numbers are encircled in figure 3 and in parentheses in the descriptive material that follows.

Southern Loop. The course begins at the intersection (1) of Ft. McKavitt Road and Paint Rock Road (FM388) at the northwest corner of Goodfellow AFB.

Drive east via FM 388 to junction with Loop Road 306 (2). Turn right onto Loop Road 306 and proceed south to junction with US277 (3). Turn onto US277 and proceed south through Eldorado and Sonora (4), continuing on US277 to junction with FM189 (5). Turn right onto FM189 and proceed to junction with Texas 163 (6). Turn left onto Texas 163, proceed south to Camp Hudson Historical Marker and onto the paved shoulder (7). Reverse route to junction of Loop Road 306 and FM 388 (2).

Eastern Loop. From junction of Loop Road 306 and FM388 (2) make right turn onto FM388 and drive east to junction with FM2334 (13). Turn right onto FM2334 and proceed south across FM765 (14) to junction of FM2334 and US87 (15). Make U-turn and return to junction of FM388 and Loop Road 306 (2) by the same route.

Northwestern Loop. From junction of Loop Road 306 and FM388 (2), make right turn onto Loop Road 306. Proceed onto US277, to junction with FM2105 (8). Turn left onto FM2105 and proceed west to junction with US87 (10). Turn right on US87 and proceed northwest to the junction with FM2034 near the town of Water Valley (11). Turn right onto FM2034 and proceed north to Texas 208 (12). Turn right onto Texas 208 and proceed south to junction with FM2105 (9). Turn left onto FM2105 and proceed east to junction with US277 (8). Turn right onto US277 and proceed south onto 306 to junction with 388 (2). Turn right onto 388 and proceed to starting point at junction of Ft. McKavitt Road and FM388 (1).

Driving instructions. The drivers shall run at posted speed limits throughout the course unless an unsafe condition arises. If such condition arises, the speed should be reduced to the maximum safe operating speed.

Braking Procedures at STOP signs. There are a number of intersections at which stops are required. At each of these intersections a series of signs is placed in a fixed order at follows:

Sign Legend

Highway Intersection 1000 (or 2000) Feet
STOP AHEAD
 Junction **XXX**

Direction Sign (Mereta--)
STOP or YIELD

Procedures. 1. Approach each intersection at posted speed limit.

2. When abreast of the **STOP AHEAD** sign, apply the brakes so that the vehicle decelerates smoothly to 30 mph when abreast of the direction sign.

3. Come to a complete stop at the **STOP** sign or behind any vehicle already stopped.

KEY POINTS ALONG TREADWEAR TEST COURSE, APPROXIMATE MILEAGES, AND REMARKS

	Mileage	Remarks
1 Fort McKavitt Rd. and F.M. 388.....	0	STOP
2 F.M. 388 and loop 308.....	3	
3 Loop 308 and U.S. 277.....	10	
4 Sonora.....	72	
5 U.S. 277 and F.M. 189.....	86	U-TURN
6 F.M. 189 and Texas 163.....	124	
7 Historical marker (Camp Hudson).....	143	
4 Sonora.....	214	
3 Loop 308 and U.S. 277.....	276	STOP
2 F.M. 388 and loop 308.....	283	
13 F.M. 388 and F.M. 2334.....	290	
14 F.M. 2334 and F.M. 785.....	292	
15 F.M. 2334 and U.S. 87.....	295	U-TURN
14 F.M. 2334 and F.M. 785.....	298	STOP
13 F.M. 388 and F.M. 2334.....	300	STOP/YIELD/BLINKING RED LIGHT
2 F.M. 388 and loop 308.....	307	STOP/YIELD/BLINKING RED LIGHT
8 U.S. 277 and F.M. 2105.....	313	STOP
9 F.M. 2105 and Texas 208.....	317	
10 F.M. 2105 and U.S. 87.....	320	STOP
11 F.M. 2034 and U.S. 87.....	336	YIELD
12 F.M. 2034 and Texas 208.....	362	
9 F.M. 2105 and Texas 208.....	387	YIELD/STOP
8 F.M. 2105 and U.S. 277.....	391	
2 F.M. 388 and loop 308.....	397	
1 Fort McKavitt Rd. and F.M. 388.....	400	

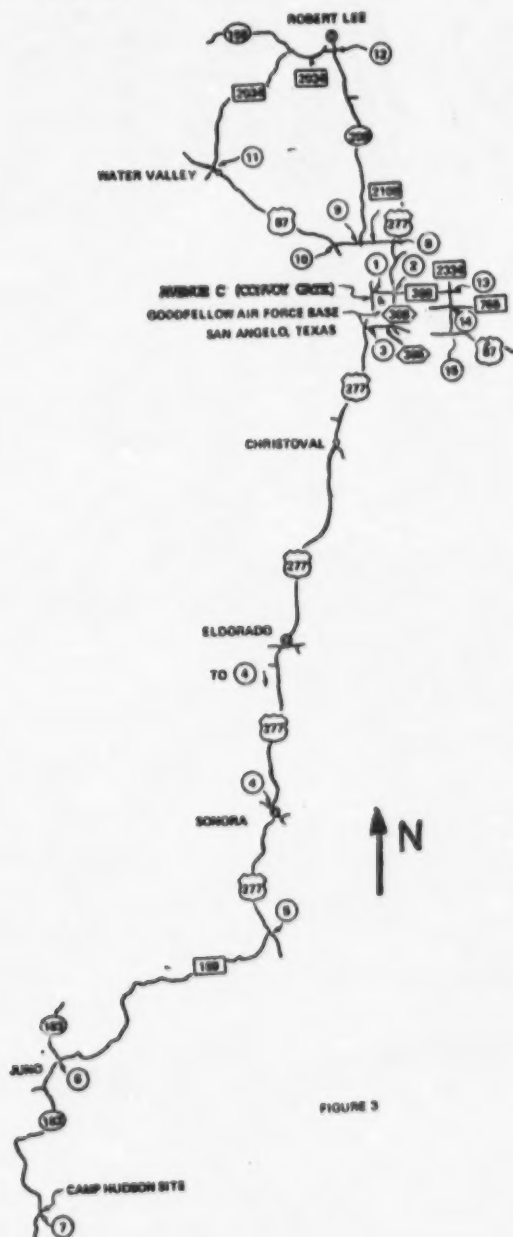


FIGURE 3

APPENDIX B—TRACTION SKID PADS

Two skid pads have been laid on an unused runway and taxi strip on Goodfellow AFB. Their location is shown in Figure 4.

The asphalt skid pad is 600 ft. x 60 ft. and is shown in black on the runway in Figure 4. The pad is approached from either end by a 75 ft. ramp followed by 100 ft. of level pavement. This arrangement permits the skid trailers to stabilize before reaching the test area. The approaches are shown on the figure by the hash-marked area.

The concrete pad is 600 ft. x 48 ft. and is on the taxi strip. The approaches to the concrete pad are of the same design as those for the asphalt pads.

A two lane asphalt road has been built to connect the runway and taxi strip. The road is parallel to the northeast-southwest runway at a distance of 100 ft. The curves have super-elevation to permit safe exit from the runway at operating speeds.

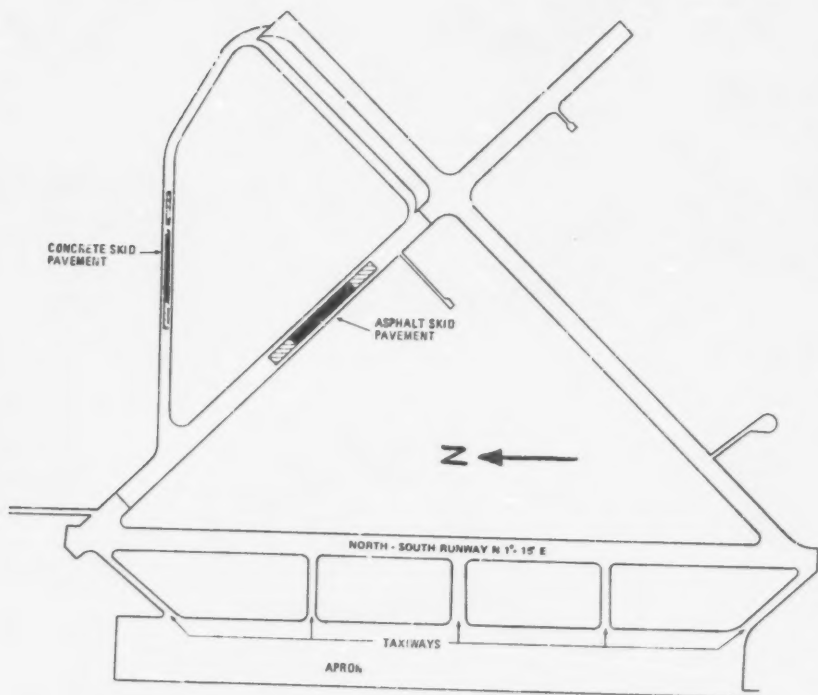


FIGURE 4

APPENDIX C—METHOD OF LEAST SQUARES

The method of least squares is a method of calculation by which it is possible to obtain a reliable estimate of a true physical relationship from a set of data which involve random error. The method may be

used to establish a regression line that minimizes the sum of the squares of the deviations of the measured data points from the line. The regression line is consequently described as the line of "best fit" to the data points. It is described in terms of its slope and its "y" intercept.

The graph in Figure 5 depicts a regression line calculated using the least squares

method from data collected from a hypothetical treadwear test of 6,400 miles, with

tread depth measurements made at every 500 miles.

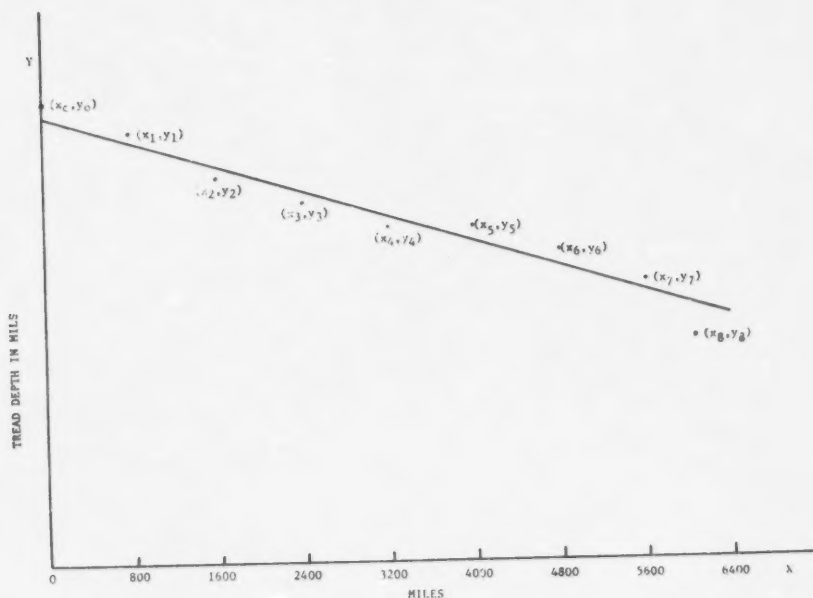


FIGURE 5

In this graph, x_i, y_i ($i=0, 1, \dots, 8$) are the individual data points representing the tread depth measurements (the overall average for the tire with 6 measurements in each tire groove) at the beginning of the test (after break-in) and at the end of each 800-mile segment of the test.

The absolute value of the slope of the regression line is an expression of the mils of tread worn per 1,000 miles, and is calculated by the following formula:

$$b = 1000 \frac{\left(\sum_{i=0}^8 x_i y_i - \frac{1}{9} \sum_{i=0}^8 x_i \sum_{i=0}^8 y_i \right)}{\sum_{i=0}^8 x_i^2 - \frac{1}{9} \left(\sum_{i=0}^8 x_i \right)^2}$$

The "y" intercept of the regression line (a) in mils is calculated by the following formula:

$$a = \frac{1}{9} \sum_{i=0}^8 y_i - \frac{b}{1000} \sum_{i=0}^8 x_i$$

(Secs. 103, 112, 119, 201, 203; Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1401, 1407, 1421, 1423); delegation of authority at 49 CFR 1.50)

[43 FR 30549, July 17, 1978 as amended at 43 FR 30542, July 17, 1978; 43 FR 50440, Oct. 30, 1978; 44 FR 15724, Mar. 15, 1979; 44 FR 68477, Nov. 29, 1979; 45 FR 6947, Jan. 31, 1980; 45 FR 23443, Apr. 7, 1980; 45 FR 70273, Oct. 23, 1980; 46 FR 41515, Aug. 17, 1981; 47 FR 26141, June 17, 1982; 47 FR 34991, Aug. 12, 1982; 49 FR 8930, Mar. 9,

§ 575.105

1984; 49 FR 38612, Oct. 1, 1984; 49 FR 39335, Oct. 5, 1984; 49 FR 49296, Dec. 19, 1984]

§ 575.105 Utility vehicles.

(a) *Purpose and scope.* This section requires manufacturers of utility vehicles to alert drivers that the particular handling and maneuvering characteristics of utility vehicles require special driving practices when those vehicles are operated on paved roads.

(b) *Application.* This section applies to multipurpose passenger vehicles (other than those which are passenger car derivatives) which have a wheelbase of 110 inches or less and special features for occasional off-road operation ("Utility vehicles").

(c) *Required information.* Each manufacturer shall prepare and affix a vehicle sticker as specified in paragraph 1 of this subsection and shall provide in the vehicle Owner's Manual the information specified in paragraph 2 of this subsection.

(1) A sticker shall be permanently affixed to the instrument panel, windshield frame, driver's side sun visor, or in some other location in each vehicle prominent and visible to the driver. The sticker shall be printed in a typeface and color which are clear and conspicuous. The sticker shall have the following or similar language:

This is a multipurpose passenger vehicle which will handle and maneuver differently from an ordinary passenger car, in driving conditions which may occur on streets and highways and off road. As with other vehicles of this type, if you make sharp turns or abrupt maneuvers, the vehicle may rollover or may go out of control and crash. You should read driving guidelines and instructions in the Owner's Manual, and WEAR YOUR SEATBELTS AT ALL TIMES.

The language on the sticker required by paragraph (1) and in the Owner's Manual, as required in paragraph (2), may be modified as is desired by the manufacturer to make it appropriate for a specific vehicle design, to ensure that consumers are adequately informed concerning the unique propensities of a particular vehicle model.

(2)(i) The vehicle Owner's Manual shall include the following statement in its introduction.

As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or an

49 CFR Ch. V (10-1-85 Edition)

accident. Be sure to read "on-pavement" and "off-road" driving guidelines which follow.

(ii) The vehicle Owner's Manual shall include the following or similar statement:

Utility vehicles have higher ground clearance and a narrower track to make them capable of performing in a wide variety of off-road applications. Specific design characteristics give them a higher center of gravity than ordinary cars. An advantage of the higher ground clearance is a better view of the road allowing you to anticipate problems. They are not designed for cornering at the same speeds as conventional 2-wheel drive vehicles any more than low-along sports cars are designed to perform satisfactorily under off-road conditions. If at all possible, avoid sharp turns or abrupt maneuvers. As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or vehicle rollover.

[49 FR 20019, May 11, 1984, as amended at 49 FR 32071, Aug. 10, 1984]

PART 576—RECORD RETENTION

Sec.

576.1 Scope.

576.2 Purpose.

576.3 Application.

576.4 Definitions.

576.5 Basic requirements.

576.6 Records.

576.7 Retention.

576.8 Malfunctions covered.

AUTHORITY: Secs. 108, 112, 113, 119, 151, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1397, 1401, 1402, 1407, 1411); delegation of authority at 49 CFR 1.51.

SOURCE: 39 FR 30045, Aug. 20, 1974, unless otherwise noted.

EDITORIAL NOTE: For an interpretation document regarding Part 576, see 40 FR 3296, Jan. 21, 1975.

§ 576.1 Scope.

This part establishes requirements for the retention by motor vehicle manufacturers of complaints, reports, and other records concerning motor vehicle malfunctions that may be related to motor vehicle safety.

§ 576.2 Purpose.

The purpose of this part is to preserve records that are needed for the proper investigation, and adjudication or other disposition, of possible defects

related to motor vehicle safety and instances of nonconformity to the motor vehicle safety standards and associated regulations.

§ 576.3 Application.

This part applies to all manufacturers of motor vehicles, with respect to all records generated or acquired after August 15, 1969.

§ 576.4 Definitions.

All terms in this part that are defined in the Act are used as defined therein.

§ 576.5 Basic requirements.

Each manufacturer of motor vehicles shall retain as specified in § 576.7 all records described in § 576.6 for a period of 5 years from the date on which they were generated or acquired by the manufacturer.

§ 576.6 Records.

Records to be retained by manufacturers under this part include all documentary materials, films, tapes, and other information-storing media that contain information concerning malfunctions that may be related to motor vehicle safety. Such records include, but are not limited to, communications from vehicle users and memoranda of user complaints; reports and other documents related to work performed under, or claims made under, warranties; service reports or similar documents from dealers or manufacturer's field personnel; and any lists, compilations, analyses, or discussions of such malfunctions contained in internal or external correspondence of the manufacturer.

§ 576.7 Retention.

Duplicate copies need not be retained. Information may be reproduced or transferred from one storage medium to another (e.g., from paper files to microfilm) as long as no information is lost in the reproduction or transfer, and when so reproduced or transferred the original form may be treated as a duplicate.

§ 576.8 Malfunctions covered.

For purposes of this part, "malfunctions that may be related to motor ve-

hicle safety" shall include, with respect to a motor vehicle or item of motor vehicle equipment, any failure or malfunction beyond normal deterioration in use, or any failure of performance, or any flaw or unintended deviation from design specifications, that could in any reasonably foreseeable manner be a causative factor in, or aggravate, an accident or an injury to a person.

PART 577—DEFECT AND NONCOMPLIANCE NOTIFICATION

Sec.

577.1 Scope.

577.2 Purpose.

577.3 Application.

577.4 Definitions.

577.5 Notification pursuant to a manufacturer's determination.

577.6 Notification pursuant to Administrator's determination.

577.7 Time and manner of notification.

577.8 Disclaimers.

577.9 Conformity to statutory requirements.

AUTHORITY: Secs. 108, 112, 119, Pub. L. 89-563, 80 Stat. 718; secs. 102, 103, 104, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1397, 1401, 1408, 1411-1420; delegation of authority at 49 CFR 1.51 and 49 CFR 501.8), unless otherwise noted.

SOURCE: 41 FR 56816, Dec. 30, 1976, unless otherwise noted.

§ 577.1 Scope.

This part sets forth requirements for notification to owners of motor vehicles and replacement equipment about the possibility of a defect which relates to motor vehicle safety or a non-compliance with a Federal motor vehicle safety standard.

§ 577.2 Purpose.

The purpose of this part is to ensure that notifications of defects or non-compliances adequately inform and effectively motivate owners of potentially defective or noncomplying motor vehicles or items of replacement equipment to have such vehicles or equipment inspected and, where necessary, remedied as quickly as possible.

§ 577.3 Application.

This part applies to manufacturers of complete motor vehicles, incomplete motor vehicles, and replacement equipment. In the case of vehicles manufactured in two or more stages, compliance by either the manufacturer of the incomplete vehicle, any subsequent manufacturer, or the manufacturer of affected replacement equipment, shall be considered compliance by each of those manufacturers.

§ 577.4 Definitions.

For the purposes of this part:

"Act" means the National Traffic and Motor Vehicle Safety Act of 1966, as amended, 15 U.S.C. 1391 et seq.

"Administrator" means the Administrator of the National Highway Traffic Safety Administration or his delegate.

"First purchaser" means the first purchaser in good faith for a purpose other than resale.

"Owners" includes purchaser.

§ 577.5 Notification pursuant to a manufacturer's determination.

(a) When a manufacturer of motor vehicles or replacement equipment determines that any motor vehicle or item of replacement equipment produced by him contains a defect which relates to motor vehicle safety, or fails to conform to an applicable Federal motor vehicle safety standard, he shall provide notification in accordance with paragraph (a) of § 577.7, unless the manufacturer is exempted by the Administrator (pursuant to section 157 of the Act) from giving such notification. The notification shall contain the information specified in this section. The information required by paragraphs (b) and (c) of this section shall be presented in the form and order specified. The information required by paragraphs (d) through (g) of this section may be presented in any order. Notification sent to an owner whose address is in either the Commonwealth of Puerto Rico or the Canal Zone shall be written in both English and Spanish.

(b) An opening statement: "This notice is sent to you in accordance with the requirements of the National

Traffic and Motor Vehicle Safety Act."

(c) Whichever of the following statements is appropriate:

(1) "(Manufacturer's name or division) has determined that a defect which relates to motor vehicle safety exists in (identified motor vehicles, in the case of notification sent by a motor vehicle manufacturer; identified replacement equipment, in the case of notification sent by a replacement equipment manufacturer);" or

(2) "(Manufacturer's name or division) has determined that (identified motor vehicles, in the case of notification sent by a motor vehicle manufacturer; identified replacement equipment, in the case of notification sent by a replacement equipment manufacturer) fail to conform to Federal Motor Vehicle Safety Standard No. (number and title of standard)."

(d) When the manufacturer determines that the defect or noncompliance may not exist in each such vehicle or item of replacement equipment, he may include an additional statement to that effect.

(e) A clear description of the defect or noncompliance, which shall include—

(1) An identification of the vehicle system or particular item(s) of motor vehicle equipment affected.

(2) A description of the malfunction that may occur as a result of the defect or noncompliance. The description of a noncompliance with an applicable standard shall include, in general terms, the difference between the performance of the noncomplying vehicle or item of replacement equipment and the performance specified by the standard;

(3) A statement of any operating or other conditions that may cause the malfunction to occur; and

(4) A statement of the precautions, if any, that the owners should take to reduce the chance that the malfunction will occur before the defect or noncompliance is remedied.

(f) An evaluation of the risk to motor vehicle safety reasonably related to the defect or noncompliance.

(1) When vehicle crash is a potential occurrence, the evaluation shall in-

clude whichever of the following is appropriate:

(i) A statement that the defect or noncompliance can cause vehicle crash without prior warning; or

(ii) A description of whatever prior warning may occur, and a statement that if this warning is not heeded, vehicle crash can occur.

(2) When vehicle crash is not the potential occurrence, the evaluation must include a statement indicating the general type of injury to occupants of the vehicle, or to persons outside the vehicle, that can result from the defect or noncompliance, and a description of whatever prior warning may occur.

(g) A statement of measures to be taken to remedy the defect or noncompliance, in accordance with paragraph (g)(1) or (g)(2) of this section, whichever is appropriate.

(1) When the manufacturer is required by the Act to remedy the defect or noncompliance without charge, or when he will voluntarily so remedy in full conformity with the Act, he shall include—

(i) A statement that he will cause such defect or noncompliance to be remedied without charge, and whether such remedy will be by repair, replacement, or (except in the case of replacement equipment) refund, less depreciation, of the purchase price.

(ii) The earliest date on which the defect or noncompliance will be remedied without charge. In the case of remedy by repair, this date shall be the earliest date on which the manufacturer reasonably expects that dealers or other service facilities will receive necessary parts and instructions. The manufacturer shall specify the last date, if any, on which he will remedy tires without charge.

(iii) In the case of remedy by repair through the manufacturer's dealers or other service facilities:

(A) A general description of the work involved in repairing the defect or noncompliance; and

(B) The manufacturer's estimate of the time reasonably necessary to perform the labor required to correct the defect or noncompliance.

(iv) In the case of remedy by repair through service facilities other than

those of the manufacturer or its dealers:

(A) The name and part number of each part must be added, replaced, or modified;

(B) A description of any modifications that must be made to existing parts, which shall also be identified by name and part number;

(C) Information as to where needed parts will be available;

(D) A detailed description (including appropriate illustrations) of each step required to correct the defect or noncompliance;

(E) The manufacturer's estimate of the time reasonably necessary to perform the labor required to correct the defect or noncompliance; and

(F) The manufacturer's recommendations of service facilities where the owner should have the repairs performed.

(v) In the case of remedy by replacement, a description of the motor vehicle or item of replacement equipment that the manufacturer will provide as a replacement for the defective or noncomplying vehicle or equipment.

(vi) In the case of remedy by refund of purchase price, the method or basis for the manufacturer's assessment of depreciation.

(vii) A statement informing the owner that he or she may submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, D.C. 20590 or call the toll free Auto Safety Hotline at 800-424-9393 (Washington D.C. area residents may call 426-0123), if the owner believes that:

(A) The manufacturer, distributor, or dealer has failed or is unable to remedy the defect or noncompliance without charge.

(B) The manufacturer has failed or is unable to remedy the defect or noncompliance without charge—

(1) In the case of motor vehicles or items of replacement equipment, other than tires) within a reasonable time, which is not longer than 60 days in the case of repair after the owner's first tender to obtain repair following the earliest repair date specified in the notification, unless the period is extended by Administrator.

(2) (In the case of tires) after the date specified in the notification on which replacement tires will be available.

(3) When the manufacturer is not required to remedy the defect or non-compliance without charge and he will not voluntarily so remedy, the statement shall include—

(i) A statement that the manufacturer is not required by the Act to remedy without charge.

(ii) A statement of the extent to which the manufacturer will voluntarily remedy, including the method of remedy and any limitations and conditions imposed by the manufacturer on such remedy.

(iii) The manufacturer's opinion whether the defect or noncompliance can be remedied by repair. If the manufacturer believes that repair is possible, the statement shall include the information specified in paragraph (g)(1)(iv) of this section, except that:

(A) The statement required by paragraph (g)(1)(iv)(A) of this section shall also indicate the suggested list price of each part.

(B) The statement required by paragraph (g)(1)(iv)(C) of this section shall also indicate the manufacturer's estimate of the date on which the parts will be generally available.

(Secs. 108, 112, and 119, Pub. L. 89-563; 80 Stat. 718; secs. 102, 103, and 104, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1397, 1401, 1408, and 1411-1420); delegation of authority at 49 CFR 1.50)

(41 FR 56816, Dec. 30, 1976, as amended at 46 FR 5971, Jan. 22, 1981; 46 FR 28657, May 28, 1981)

§ 577.6 Notification pursuant to Administrator's determination.

(a) *Manufactured-ordered notification.* When a manufacturer is ordered pursuant to section 152 of the Act to provide notification of a defect or non-compliance, he shall provide such notification in accordance with §§ 577.5 and 577.7, except that the statement required by paragraph (c) of § 577.5 shall indicate that the determination has been made by the Administrator of the National Highway Traffic Safety Administration.

(b) *Provisional notification.* When a manufacturer does not provide notification

as required by paragraph (a) of this section, and an action concerning the Administrator's order to provide such notification has been filed in a United States District Court, the manufacturer shall, upon the Administrator's further order, provide in accordance with paragraph (b) of § 577.7 a provisional notification containing the information specified in this paragraph, in the order and, where specified, the form of paragraphs (b)(1) through (b)(12) of this section.

(1) An opening statement: "This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act."

(2) Whichever of the following statements is appropriate:

(i) "The Administrator of the National Highway Traffic Safety Administration has determined that a defect which relates to motor vehicle safety exists in (identified motor vehicles, in the case of notification sent by a motor vehicle manufacturer; identified replacement equipment, in the case of notification sent by a replacement equipment manufacturer);" or

(ii) "The Administrator of the National Highway Traffic Safety Administration has determined that (identified motor vehicles, in the case of notification sent by a motor vehicle manufacturer; identified replacement equipment, in the case of notification sent by a replacement equipment manufacturer) fail to conform to Federal Motor Vehicle Safety Standard No. (number and title of standard)."

(3) When the Administrator determines that the defect or noncompliance may not exist in each such vehicle or item of replacement equipment, the manufacturer may include an additional statement to that effect.

(4) The statement: "(Manufacturer's name or division) is contesting this determination in a proceeding in the Federal courts and has been required to issue this notice pending the outcome of the court proceeding."

(5) A clear description of the Administrator's stated basis for his determination, as provided in his order, including a brief summary of the evidence and reasoning that the Adminis-

trator relied upon in making his determination.

(6) A clear description of the Administrator's stated evaluation as provided in his order of the risk to motor vehicle safety reasonably related to the defect or noncompliance.

(7) Any measures that the Administrator has stated in his order should be taken by the owner to avoid an unreasonable hazard resulting from the defect or noncompliance.

(8) A brief summary of the evidence and reasoning upon which the manufacturer relies in contesting the Administrator's determination.

(9) A statement regarding the availability of remedy and reimbursement in accordance with paragraph (b)(9)(i) or (9)(ii) of this section, whichever is appropriate.

(i) When the purchase date of the vehicle or item of equipment is such that the manufacturer is required by the Act to remedy without charge or to reimburse the owner for reasonable and necessary repair expenses, he shall include—

(A) A statement that the remedy will be provided without charge to the owner if the Court upholds the Administrator's determination;

(B) A statement of the method of remedy. If the manufacturer has not yet determined the method of remedy, he shall indicate that he will select either repair, replacement with an equivalent vehicle or item of replacement equipment, or (except in the case of replacement equipment) refund, less depreciation, of the purchase price; and

(C) A statement that, if the Court upholds the Administrator's determination, he will reimburse the owner for any reasonable and necessary expenses that the owner incurs (not in excess of any amount specified by the Administrator) in repairing the defect or noncompliance following a date, specified by the manufacturer, which shall not be later than the date of the Administrator's order to issue this notification.

(ii) When the manufacturer is not required either to remedy without charge or to reimburse, he shall include—

(A) A statement that he is not required to remedy or reimburse, or

(B) A statement of the extent to which he will voluntarily remedy or reimburse, including the method of remedy, if then known, and any limitations and conditions on such remedy or reimbursement.

(10) A statement indicating whether, in the manufacturer's opinion, the defect or noncompliance can be remedied by repair. When the manufacturer believes that such remedy is feasible, the statement shall include:

(i) A general description of the work and the manufacturer's estimate of the costs involved in repairing the defect or noncompliance;

(ii) Information on where needed parts and instructions for repairing the defect or noncompliance will be available, including the manufacturer's estimate of the day on which they will be generally available;

(iii) The manufacturer's estimate of the time reasonably necessary to perform the labor required to correct the defect or noncompliance; and

(iv) The manufacturer's recommendations of service facilities where the owner could have the repairs performed, including (in the case of a manufacturer required to reimburse if the Administrator's determination is upheld in the court proceeding) at least one service facility for whose charges the owner will be fully reimbursed if the Administrator's determination is upheld.

(11) A statement that further notice will be mailed by the manufacturer to the owner if the Administrator's determination is upheld in the court proceeding; and

(12) An address of the manufacturer where the owner may write to obtain additional information regarding the notification and remedy.

(c) *Post-litigation notification.* When a manufacturer does not provide notification as required in paragraph (a) of this section and the Administrator prevails in an action commenced with respect to such notification, the manufacturer shall, upon the Administrator's further order, provide notification in accordance with paragraph (b) of § 577.7 containing the in-

formation specified in paragraph (a) of this section, except that—

(1) The statement required by paragraph (c) of § 577.5 shall indicate that the determination has been made by the Administrator and that his determination has been upheld in a proceeding in the Federal courts; and

(2) When a provisional notification was issued regarding the defect or noncompliance and the manufacturer is required under the Act to reimburse—

(i) The manufacturer shall state that he will reimburse the owner for any reasonable and necessary expenses that the owner incurred (not in excess of any amount specified by the Administrator) for repair of the defect or noncompliance of the vehicle or item of equipment on or after the date on which provisional notification was ordered to be issued and on or before a date not sooner than the date on which this notification is received by the owner. The manufacturer shall determine and specify both dates.

(ii) The statement required by paragraph (g)(1)(vii) of § 577.5 shall also inform the owner that he may submit a complaint to the Administrator if the owner believes that the manufacturer has failed to reimburse adequately.

(3) If the manufacturer is not required under the Act to reimburse, he shall include—

(i) A statement that he is not required to reimburse, or

(ii) When he will voluntarily reimburse, a statement of the extent to which he will do so, including any limitations and conditions on such reimbursement.

§ 577.7 Time and manner of notification.

(a) The notification required by § 577.5 shall—

(1) Be furnished within a reasonable time after the manufacturer first determines the existence of a defect which relates to motor vehicle safety, or of a noncompliance.

(2) Be accomplished—

(i) In the case of a notification required to be sent by a motor vehicle manufacturer, by first class mail to each person who is registered under State law as the owner of the vehicle

and whose name and address are reasonably ascertainable by the manufacturer through State records or other sources available to him. If the owner cannot be reasonably ascertained, the manufacturer shall notify the most recent purchaser known to the manufacturer.

(ii) In the case of a notification required to be sent by a replacement equipment manufacturer—

(A) By first class mail to the most recent purchaser known to the manufacturer, and

(B) (Except in the case of a tire) if determined by the Administrator to be necessary for motor vehicle safety, by public notice in such manner as the Administrator may determine after consultation with the manufacturer.

(iii) In the case of a manufacturer required to provide notification concerning any defective or noncomplying tire, by first class or certified mail.

(b) The notification required by any paragraph of § 577.5 shall be provided:

(1) Within 60 days after the manufacturer's receipt of the Administrator's order to provide the notification, except that the notification shall be furnished within a shorter or longer period if the Administrator incorporates in his order a finding that such period is in the public interest; and

(2) In the manner and to the recipient specified in paragraph (a) of this section.

§ 577.8 Disclaimers.

(a) A notification sent pursuant to § 577.5 or § 577.6 regarding a defect which relates to motor vehicle safety shall not, except as specifically provided in this part, contain any statement or implication that there is no defect, that the defect does not relate to motor vehicle safety, or that the defect is not present in the owner's vehicle or item of replacement equipment.

(b) A notification sent pursuant to § 577.5 or § 577.6 regarding a noncompliance with an applicable Federal motor vehicle safety standard shall not, except as specifically provided in this part, contain any statement or implication that there is not a noncompliance or that the noncompliance is

not present in the owner's vehicle or item of replacement equipment.

§ 577.9 Conformity to statutory requirements.

A notification that does not conform to the requirements of this part is a violation of the Act.

PART 579—DEFECT AND NONCOMPLIANCE RESPONSIBILITY

Sec.

579.1 Scope.

579.2 Purpose.

579.3 Application.

579.4 Definitions.

579.5 Defect and noncompliance responsibility.

AUTHORITY: Secs. 103, 108, 112, 113, Pub. L. 89-563, 80 Stat. 718; sec. 102, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1392, 1397, 1401, 1411-1420; delegation of authority at 49 CFR 1.50).

SOURCE: 43 FR 38833, Aug. 31, 1978, unless otherwise noted.

§ 579.1 Scope.

This part sets forth the responsibilities under Part B of the Act of manufacturers for safety-related defects and noncompliances with Federal motor vehicle safety standards in motor vehicles and items of motor vehicle equipment.

§ 579.2 Purpose.

The purpose of this part is to facilitate the notification of owners of defective and noncomplying motor vehicles and items of motor vehicle equipment, and the remedy of defective and noncomplying vehicles and items of equipment, by equitably reapportioning the responsibility for safety-related defects and noncompliances with Federal motor vehicle safety standards among manufacturers of motor vehicles and motor vehicle equipment.

§ 579.3 Application.

This part applies to all manufacturers of motor vehicles and motor vehicle equipment.

§ 579.4 Definitions.

(a) "Original equipment" means an item of motor vehicle equipment (other than a tire) which was installed

in or on a motor vehicle at the time of its delivery to the first purchaser if—

(1) The item of equipment was installed on or in the motor vehicle at the time of its delivery to a dealer or distributor for distribution; or

(2) The item of equipment was installed by the dealer or distributor with the express authorization of the motor vehicle manufacturer.

(b) "Replacement equipment" means—

(1) Motor vehicle equipment other than original equipment as defined in paragraph (a) of this section; and

(2) Tires.

(c) "The Act" means the National Traffic and Motor Vehicle Safety Act of 1966, as amended.

§ 579.5 Defect and noncompliance responsibility.

(a) Each manufacturer of a motor vehicle shall be responsible for any safety-related defect or any noncompliance determined to exist in the vehicle or in any item of original equipment.

(b) Each manufacturer of an item of replacement equipment shall be responsible for any safety-related defect or any noncompliance determined to exist in the equipment.

PART 580—ODOMETER DISCLOSURE REQUIREMENTS

Sec.

580.1 Scope.

580.2 Purpose.

580.3 Definitions.

580.4 Disclosure of odometer information.

580.5 Exemptions.

580.6 Disclosure form.

580.7 Odometer mileage statement retention.

AUTHORITY: Sec. 408(a), Motor Vehicle Information and Cost Savings Act, Pub. L. 92-513, 86 Stat. 947 (15 U.S.C. 1988; 49 CFR 1.51), unless otherwise noted.

SOURCE: 38 FR 2979, Jan. 31, 1973, unless otherwise noted.

§ 580.1 Scope.

This part prescribes rules requiring the transferor of a motor vehicle to make written disclosure to the transferee concerning the odometer mileage and its accuracy, and requiring the re-

tention of odometer mileage statements by motor vehicle dealers and distributors, as directed by section 408(a) and 414(b) of the Motor Vehicle Information and Cost Savings Act, Pub. L. 92-513, as amended by Pub. L. 94-364.

(Secs. 408, 414, Pub. L. 92-513, 86 Stat. 947, as amended; Pub. L. 94-364, 90 Stat. 981 (15 U.S.C. 1988, 1990(d)); delegation of authority at 49 CFR 1.50(f))

[43 FR 10922, Mar. 16, 1978]

§ 590.2 Purpose.

The purpose of this part is to provide each purchaser of a motor vehicle with odometer information to assist him in determining the vehicle's condition and value, and to preserve records that are needed for the proper investigation, and adjudication or other disposition, of possible violations of the Motor Vehicle Information and Cost Savings Act.

(Secs. 408, 414, Pub. L. 92-513, 86 Stat. 947, as amended; Pub. L. 94-364, 90 Stat. 981 (15 U.S.C. 1988, 1990(d)); delegation of authority at 49 CFR 1.50(f))

[43 FR 10922, Mar. 16, 1978]

§ 590.3 Definitions.

All terms defined in sections 2 and 402 of the Act are used in their statutory meaning. Other terms used in this part are defined as follows:

"Transferor" means any person who transfers his ownership in a motor vehicle by sale, gift, or any means other than by creation of a security interest.

"Transferee" means any person to whom the ownership in a motor vehicle is transferred by purchase, gift, or any means other than by creation of a security interest.

§ 590.4 Disclosure of odometer information.

(a) Before executing any transfer of ownership document, each transferor of a motor vehicle shall furnish to the transferee a written statement signed by the transferor, containing the following information:

(1) The odometer reading at the time of transfer;

(2) The date of transfer;

(3) The transferor's name and current address;

(4) The transferee's name and current address;

(5) The identity of the vehicle, including its make, model, year, and body type, and its vehicle identification number.

(b) In addition to the information provided under paragraph (a) of this section, the statement shall refer to the Motor Vehicle Information and Cost Savings Act and shall state that incorrect information may result in civil liability and civil or criminal penalties.

(c) In addition to the information provided under paragraphs (a) and (b) of this section,

(1) The transferor shall certify that to the best of his knowledge the odometer reading reflects the actual miles or kilometers the vehicle has been driven; or

(2) If the transferor knows that the odometer reading reflects the amount of mileage in excess of the designed mechanical odometer limit of 99,999 miles/kilometers, he shall include a statement to that effect; or

(3) If the transferor knows that the odometer reading differs from the number of miles/kilometers the vehicle has actually traveled and that the difference is greater than that caused by odometer calibration error, he shall include a statement that the odometer reading is not the actual mileage, and should not be relied upon.

(d) In addition to the information provided under paragraphs (a), (b) and (c) of this section, the transferor shall certify that:

(1) The odometer was not altered, set back, or disconnected while in the transferor's possession, and he has no knowledge of anyone else doing so;

(2) The odometer was altered for repair or replacement purposes while in the transferor's possession, and the mileage registered on the repaired or replacement odometer was identical to that before such service; or

(3) The odometer was altered for repair or replacement purposes, the odometer was incapable of registering the same mileage, it was reset to zero, and the mileage on odometer before repair was — miles/kilometers.

(c) The transferee shall acknowledge receipt of the disclosure statement by signing it.

(f)(1) If the laws or regulations of the State in which the transfer occurs require the odometer disclosure to be made on the certificate of title or other State documents which evidences ownership, the transferor may make the disclosure required by this section by executing the State certificate of title or such other ownership document. In order to utilize the above documents as substitutes for the Federal odometer disclosure statement, they must contain essentially the same information required by paragraphs (a), (b), (c) and (e) of this section. If the information contained thereon varies in any way from that required for the Federal form, the State must obtain approval from the National Highway Traffic Safety Administration before its certificate of title or other ownership document can be used as a substitute for the Federal form. Such approval may be obtained by submitting a copy of the proposed document to the Office of the Chief Counsel, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, D.C. 20590.

(2) The NHTSA shall respond to the State's request within 30 days of receipt of such request.

(g) If there is no State document as described in paragraph (f) of this section, the transferor shall make the disclosure required by this section by executing the disclosure form specified in § 580.6.

[42 FR 38908, Aug. 1, 1977, as amended at 45 FR 784, Jan. 3, 1980]

§ 580.5 Exemptions.

Notwithstanding the requirements of § 580.4:

(a) A transferor of any of the following motor vehicles need not disclose the vehicle's odometer mileage;

(1) A vehicle having a gross vehicle weight rating, as defined in § 571.3 of this chapter, of more than 16,000 pounds;

(2) A vehicle that is not self-propelled;

(3) A vehicle that is 25 years old or older; or

(4) A vehicle sold directly by the manufacturer to any agency of the United States in conformity with contractual specifications.

(b) A transferor of a new vehicle prior to its first transfer for any purposes other than resale need not disclose the vehicle's odometer mileage.

(Sec. 408, Pub. L. 92-513, 86 Stat. 947, as amended by Pub. L. 94-364, 90 Stat. 981 (15 U.S.C. 1988); delegation of authority at 49 CFR 1.50(f))

[47 FR 51885, Nov. 18, 1982]

§ 580.6 Disclosure form.

ODOMETER MILEAGE STATEMENT

(Federal regulations require you to state the odometer mileage upon transfer of ownership. An inaccurate or untruthful statement may make you liable for damages to your transferee, for attorney fees, and for civil or criminal penalties, pursuant to sections 409, 412, and 413 of the Motor Vehicle Information and Cost Savings Act of 1972 (Pub. L. 92-513, as amended by Pub. L. 94-364).)

I, _____ (transferor's name, print), state that the odometer of the vehicle described below now reads _____ miles/kilometers.

Check one box only.

- ☐ (1) I hereby certify that to the best of my knowledge the odometer reading as stated above reflects the actual mileage of the vehicle described below.
- ☐ (2) I hereby certify that to the best of my knowledge the odometer reading as stated above reflects the amount of mileage in excess of designed mechanical odometer limit of 99,999 miles/kilometers of the vehicle described below.
- ☐ (3) I hereby certify that to the best of my knowledge the odometer reading as stated above is NOT the actual mileage of the vehicle described below, and should not be relied upon.

Make	Model	Body type
Vehicle identification number		Year

Check one box only.

- ☐ (1) I hereby certify that the odometer of said vehicle was not altered, set back, or disconnected while in my possession, and I have no knowledge of anyone else doing so.
- ☐ (2) I hereby certify that the odometer was altered for repair or replacement purposes while in my possession, and that the mileage registered on the repaired or replacement odometer was identical to that before such service.

§ 580.7

- (3) I hereby certify that the repaired or replacement odometer was incapable of registering the same mileage, that it was reset to zero, and that the mileage on the original odometer or the odometer before repair was _____ miles.

Transferor's Address (seller) _____
(Street)

(City) (State) (ZIP Code)

Transferor's Signature (seller) _____

Date of Statement: _____

Transferee's Name and Address (buyer) —

(Street)

(City) (State) (ZIP Code)

Receipt of copy Acknowledged _____

(Transferee's signature, buyer)

[42 FR 30908, Aug. 1, 1977]

§ 580.7 Odometer mileage statement retention.

Each dealer or distributor of a motor vehicle who is required by this part to execute an odometer disclosure statement shall retain for four years each odometer mileage statement which he receives. He shall also retain for four years a photostat, carbon, or other facsimile copy of each odometer mileage statement which he issues. He shall retain each odometer mileage statement at his primary place of business in an order that is appropriate to this business requirements and that permits systematic retrieval. The statement may be reproduced (e.g., photocopies or put on microfilm) as long as no information or identifying marks such as signatures are lost in the reproduction.

(Secs. 408, 414, Pub. L. 92-513, 86 Stat. 947, as amended; Pub. L. 94-364, 90 Stat. 981 (15 U.S.C. 1988, 1990(d)); delegation of authority at 49 CFR 1.50(f))

[43 FR 10922, Mar. 10, 1978]

PART 581—BUMPER STANDARD

Sec.

581.1 Scope.

581.2 Purpose.

581.3 Application.

49 CFR Ch. V (10-1-85 Edition)

Sec.

581.4 Definitions.

581.5 Requirements.

581.6 Conditions.

581.7 Test procedures.

AUTHORITY: Sec. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); sec. 103, Pub. L. 92-513, 86 Stat. 947 (15 U.S.C. 1912) delegation of authority at 49 CFR 1.50, unless otherwise noted.

SOURCE: 42 FR 24050, May 12, 1977, unless otherwise noted.

§ 581.1 Scope.

This standard establishes requirements for the impact resistance of vehicles in low speed front and rear collisions.

§ 581.2 Purpose.

The purpose of this standard is to reduce physical damage to the front and rear ends of a passenger motor vehicle from low speed collisions.

§ 581.3 Application.

This standard applies to passenger motor vehicles other than multipurpose passenger vehicles.

§ 581.4 Definitions.

All terms defined in the Motor Vehicle Information and Cost Savings Act, Pub. L. 92-513, 15 U.S.C. 1901-1991, are used as defined therein.

"Bumper face bar" means any component of the bumper system that contacts the impact ridge of the pendulum test device.

§ 581.5 Requirements.

(a) Each vehicle shall meet the damage criteria of §§ 581.5(c)(1) through 581.5(c)(9) when impacted by a pendulum-type test device in accordance with the procedures of § 581.7(b), under the conditions of § 581.6, at an impact speed of 1.5 m.p.h., and when impacted by a pendulum-type test device in accordance with the procedures of § 581.7(a) at 2.5 m.p.h., followed by an impact into a fixed collision barrier that is perpendicular to the line of travel of the vehicle, while traveling longitudinally forward, then longitudinally rearward, under the conditions of § 581.6, at 2.5 m.p.h.

(b) [Reserved]

(c) *Protective criteria.* (1) Each lamp or reflective device except license plate lamps shall be free of cracks and shall comply with applicable visibility requirements of S4.3.1.1 of Standard No. 108 (§ 571.108 of this part). The aim of each headlamp shall be adjustable to within the beam aim inspection limits specified in Table 2 of SAE Recommended Practice J599b, July 1970, measured with a mechanical almer conforming to the requirements of SAE Standard J602a, July 1970.

(2) The vehicle's hood, trunk, and doors shall operate in the normal manner.

(3) The vehicle's fuel and cooling systems shall have no leaks or constricted fluid passages and all sealing devices and caps shall operate in the normal manner.

(4) The vehicle's exhaust system shall have no leaks or constrictions.

(5) The vehicle's propulsion, suspension, steering, and braking systems shall remain in adjustment and shall operate in the normal manner.

(6) A pressure vessel used to absorb impact energy in an exterior protection system by the accumulation of gas pressure or hydraulic pressure shall not suffer loss of gas or fluid accompanied by separation of fragments from the vessel.

(7) The vehicle shall not touch the test device, except on the impact ridge shown in Figures 1 and 2, with a force that exceeds 2000 pounds on the combined surfaces of Planes A and B of the test device.

(8) The exterior surfaces shall have no separations of surface materials, paint, polymeric coatings, or other covering materials from the surface to which they are bonded, and no permanent deviations from their original contours 30 minutes after completion of each pendulum and barrier impact, except where such damage occurs to the bumper face bar and the components and associated fasteners that directly attach the bumper face bar to the chassis frame.

(9) Except as provided in § 581.5(c)(8), there shall be no breakage or release of fasteners or joints.

[42 FR 24059, May 12, 1977, as amended at 42 FR 38909, Aug. 1, 1977; 43 FR 40231, Sept. 11, 1978; 47 FR 21837, May 20, 1982]

§ 581.6 Conditions.

The vehicle shall meet the requirements of § 581.5 under the following conditions.

(a) *General.* (1) The vehicle is at unloaded vehicle weight.

(2) The front wheels are in the straight ahead position.

(3) Tires are inflated to the vehicle manufacturer's recommended pressure for the specified loading condition.

(4) Brakes are disengaged and the transmission is in neutral.

(5) Trailer hitches, license plate brackets, and headlamp washers are removed from the vehicle. Running lights, fog lamps, and equipment mounted on the bumper face bar are removed from the vehicle if they are optional equipment.

(b) *Pendulum test conditions.* The following conditions apply to the pendulum test procedures of § 581.7 (a) and (b).

(1) The test device consists of a block with one side contoured as specified in Figure 1 and Figure 2 with the impact ridge made of A1S1 4130 steel hardened to 34 Rockwell "C." The impact ridge and the surfaces in Planes A and B of the test device are finished with a surface roughness of 32 as specified by SAE Recommended Practice J449A, June 1963. From the point of release of the device until the onset of rebound, the pendulum suspension system holds Plane A vertical, with the arc described by any point on the impact line lying in a vertical plane (for § 581.7(a), longitudinal; for § 581.7(b), at an angle of 30° to a vertical longitudinal plane) and having a constant radius of not less than 11 feet.

(2) With Plane A vertical, the impact line shown in Figures 1 and 2 is horizontal at the same height as the test device's center of percussion.

(3) The effective impacting mass of the test device is equal to the mass of the tested vehicle.

(4) When impacted by the test device, the vehicle is at rest on a level rigid concrete surface.

(c) *Barrier test condition.* At the onset of a barrier impact, the vehicle's engine is operating at idling speed in accordance with the manufacturer's

specifications. Vehicle systems that are not necessary to the movement of the vehicle are not operating during impact.

(Sec. 102, Pub. L. 92-513, 86 Stat. 947 (15 U.S.C. 1912); secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); delegation of authority at 49 CFR 1.50 and 501.7) [42 FR 24059, May 12, 1977, as amended at 42 FR 38909, Aug. 1, 1977; 48 FR 43331, Sept. 23, 1983]

§ 581.7 Test procedures.

(a) *Longitudinal impact test procedures.* (1) Impact the vehicle's front surface and its rear surface two times each with the impact line at any height from 16 to 20 inches, inclusive, in accordance with the following procedure.

(2) For impacts at a height of 20 inches, place the test device shown in Figure 1 so that Plane A is vertical and the impact line is horizontal at the specified height.

(3) For impacts at a height between 20 inches and 16 inches, place the test device shown in Figure 2 so that Plane A is vertical and the impact line is horizontal at a height within the range.

(4) For each impact, position the test device so that the impact line is at least 2 inches apart in vertical direction from its position in any prior impact, unless the midpoint of the impact line with respect to the vehicle is to be more than 12 inches apart laterally from its position in any prior impact.

(5) For each impact, align the vehicle so that it touches, but does not move, the test device, with the vehicle's longitudinal centerline perpendicular to the plane that includes Plane A of the test device and with the test device inboard of the vehicle corner test positions specified in § 581.7(b).

(6) Move the test device away from the vehicle, then release it to impact the vehicle.

(7) Perform the impacts at intervals of not less than 30 minutes.

(b) *Corner impact test procedure.* (1) Impact a front corner and a rear corner of the vehicle one each with the impact line at a height of 20 inches and impact the other front corner and the other rear corner once each with the impact line at any

height from 16 to 20 inches, inclusive, in accordance with the following procedure.

(2) For an impact at a height of 20 inches, place the test device shown in Figure 1 so that Plane A is vertical and the impact line is horizontal at the specified height.

(3) For an impact at a height between 16 inches and 20 inches, place the test device shown in Figure 2 so that Plane A is vertical and the impact line is horizontal at a height within the range.

(4) Align the vehicle so that a vehicle corner touches, but does not move, the lateral center of the test device with Plane A of the test device forming an angle of 60 degrees with a vertical longitudinal plane.

(5) Move the test device away from the vehicle, then release it to impact the vehicle.

(6) Perform the impact at intervals of not less than 30 minutes.

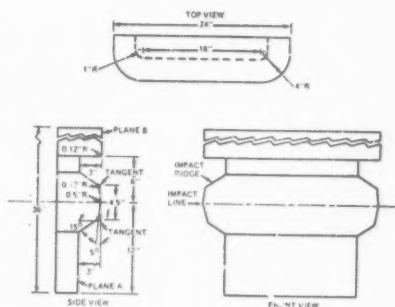


FIGURE 1

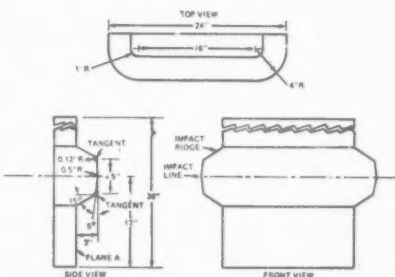


FIGURE 2

[42 FR 24059, May 12, 1977, as amended at 42 FR 38909, Aug. 1, 1977]

PART 582—INSURANCE COST INFORMATION REGULATION

Sec.

582.1 Scope.

582.2 Purpose.

582.3 Definitions.

582.4 Requirements.

582.5 Insurance cost information form.

AUTHORITY: Sec. 201(c), Pub. L. 92-513, 86 Stat. 947 (15 U.S.C. 1941(e)); delegation of authority at 49 CFR 1.51.

SOURCE: 40 FR 4918, Feb. 3, 1975, unless otherwise noted.

§ 582.1 Scope.

This part requires automobile dealers to make available to prospective purchasers information reflecting differences in insurance costs for different makes and models of passenger motor vehicles based upon differences in damage susceptibility and crashworthiness, pursuant to section 201(e) of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1941(e)), herein "the Cost Savings Act."

§ 582.2 Purpose.

The purpose of this part is to enable prospective purchasers to compare differences in auto insurance costs for the various makes and models of passenger motor vehicles, based upon differences in damage susceptibility and crashworthiness, and to realize any savings in collision insurance resulting from differences in damageability, and any savings, in medical payment insurance resulting from differences in crashworthiness.

§ 582.3 Definitions.

(a) *Statutory definitions.* All terms used in this part which are defined in section 2 of the Cost Savings Act are used as so defined.

(b) *Definitions used in this part.* (1) "Automobile dealer" means any person who engages in the retail sale of new or used automobiles as a trade or business.

(2) "Collision insurance" means insurance that reimburses the insured party for physical damage to his prop-

erty resulting from automobile accidents.

(3) "Insurance cost" means the insurance premium rate, as expressed in appropriate indices, for collision and medical payment, including personal injury protection in no-fault states.

(4) "Medical payment insurance" means insurance that reimburses the insured party for medical expenses sustained by himself, his family, and his passengers in automobile accidents.

§ 582.4 Requirements.

(a) Each automobile dealer shall provide the insurance cost information specified in § 582.5 for examination by prospective purchasers at each location where he offers vehicles for sale.

(b) The information shall be provided without charge and in sufficient quantity to have it available for retention by prospective purchasers, within 30 days after its publication in the FEDERAL REGISTER.

(c) The information shall be in English and, if a significant portion of the prospective purchasers do not speak English, in the non-English language most widely spoken by prospective purchasers.

§ 582.5 Insurance cost information form.

The insurance cost information provided pursuant to § 582.4 shall be presented as follows: [Form to be specified].

PART 590—MOTOR VEHICLE EMISSION INSPECTIONS

Sec.

590.1 Scope.

590.2 Purpose.

590.3 Applicability.

590.4 Definitions.

590.5 Requirements.

590.6 No-load inspection.

590.7 Loaded-mode inspection.

590.8 Inspection conditions.

AUTHORITY: Sec. 302(b)(1), Pub. L. 92-513, 86 Stat. 947, 15 U.S.C. 1901; delegation of authority at 49 CFR 1.51.

SOURCE: 40 FR 24905, June 1, 1975, unless otherwise noted.

§ 590.1

49 CFR Ch. V (10-1-85 Edition)

§ 590.1 Scope.

This part specifies standards and procedures for motor vehicle emission inspections by State or State-supervised diagnostic inspection demonstration projects funded under Title III of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1901, *et seq.*).

§ 590.2 Purpose.

The purpose of this part is to support the development of effective regulation of automobile exhaust emissions and thereby improve air quality, by establishing appropriate uniform procedures for diagnostic emission inspection demonstration projects.

§ 590.3 Applicability.

This part does not impose requirements on any person. It is intended to be utilized by State diagnostic inspection demonstration projects operating under Title III of the Cost Savings Act for diagnostic emission inspections of passenger cars powered by spark-ignition engines.

§ 590.4 Definitions.

All terms used in this part that are defined in 49 CFR Part 571, Motor Vehicle Safety Standards, are used as defined in that part.

§ 590.5 Requirements.

A diagnostic inspection demonstration project shall test vehicles in accordance with either the no-load inspection criteria specified in § 590.6, or the loaded-mode inspection criteria specified in § 590.7.

§ 590.6 No-load inspection.

(a) *Criteria.* The vehicle must meet the following criteria when tested by the no-load inspection method.

(1) The vehicle's idle speed, measured with the transmission in the position recommended by the manufacturer for adjusting the idle speed, shall not be more than 100 rpm higher than the idle speed recommended by the manufacturer.

(2) Concentrations of emission samples taken from each exhaust outlet shall not exceed the following levels:

(i) For model years 1967 and earlier: Hydrocarbons (HC) 1200 ppm as hexane, and carbon monoxide (CO) 9.0 mole percent.

(ii) For model years 1968 through 1973: HC 600 ppm as hexane, and CO 7.0 mole percent.

(b) *Method.* No-load inspection is conducted by measuring two emission samples from each exhaust outlet. The first emission sample is collected with the vehicle's transmission in neutral and the engine operating at 2250 rpm. The second sample is collected with the vehicle's transmission in the position recommended by the manufacturer for adjusting the idle speed, and the engine idling.

§ 590.7 Loaded-mode inspection.

(a) *Criteria.* When the loaded mode inspection is conducted, concentrations of the emission samples taken from each exhaust outlet for each of the three phases of the driving cycle in Table I, conducted in the sequence indicated, shall not exceed the levels given in Table II. For the purpose of determining the weight classification of a motor vehicle for the loaded-mode inspection, 300 pounds are added to the vehicle's unladen curb weight.

TABLE I

Curb weight plus 300 lbs	Driving cycle (speed load combination)		
	1st phase high cruise	2d phase low cruise	3d phase idle
3,601 lbs and up	48 to 50 mi/h at 27 to 30 hp	32 to 35 mi/h at 10 to 12 hp	At idle
2,801 to 3,600 lbs.	44 to 46 mi/h at 21 to 24 hp	29 to 32 mi/h at 8 to 10 hp	Do.
2,000 to 2,800 lbs.	36 to 38 mi/h at 13 to 15 hp	22 to 25 mi/h at 4 to 6 hp	Do.

TABLE II

High cruise	Low cruise	Idle
1967 and earlier model years: HC 900 pm as hexane, CO 4.5 mole percent.	HC 900 pm as hexane, CO 5.5 mole percent.	HC 1,200 pm as hexane, CO 9.0 mole percent.
1968 through 1973: HC 450 pm as hexane, CO 3.75 mole percent.	HC 450 pm as hexane, CO 4.25 mole percent.	HC 600 pm as hexane, CO 7.0 mole percent.

(b) *Method.* Loaded-mode inspection for the first two phases of the driving cycle described in Table I is conducted by measuring the levels of emission concentrations from each exhaust outlet of a motor vehicle operated on a chassis dynamometer, with the vehicle's transmission in the setting recommended by the vehicle manufacturer for the speed-load combination being tested. For the idle phase, vehicles with automatic transmissions are tested in drive, and vehicles with standard transmissions are tested in neutral.

§ 590.8 Inspection conditions.

(a) The vehicle engine is at its normal operating temperature, as specified by the vehicle manufacturer.

(b) An engine speed indicator with a graduated scale from zero to at least 2500 rpm is used for the unloaded inspection procedure.

(c) The equipment used for analyzing the emission concentration levels—

(1) Has a warm-up period not to exceed 30 minutes;

(2) Is able to withstand sustained periods of continuous use;

(3) Has a direct and continuous meter readout that allows readings for concentration levels of carbon monoxide (CO) from 0-10 mole percent, and of hydrocarbon (HC) from 0-2000 ppm of hexane; and if used for the loaded-mode inspection, has at least one additional expanded direct and continuous readout for concentration levels of carbon monoxide and of hydrocarbon, such as from 0-5 mole percent and from 0-1000 ppm as hexane respectively;

(4) Has an accuracy of better than ± 5 percent of the full scale reading for each concentration range;

(5) Permits a reading for each emission concentration level, within 10 seconds after the emission sample has been taken, that is not less than 90 percent of the final reading; and

(6) Has a calibration system using a standard gas, or an equivalent mechanical or electrical calibration system which itself is based on a standard gas.

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CHAPTER VI—URBAN MASS TRANSPORTATION ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

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PART 601—ORGANIZATION, FUNCTIONS, AND PROCEDURES

Subpart A—General

Sec.

601.1 Purpose.

601.2 Organization of the Administration.

601.3 General responsibilities.

601.4 Responsibilities of the Administrator.

Subpart B—Delegations

601.10 Delegations of authority.

Subpart C—Public Availability of Information

601.20 Sources of information.

AUTHORITY: Sec. 9, Department of Transportation Act (49 U.S.C. 1657, 1659); Reorganization Plan No. 2 of 1968 (82 Stat. 1369), and 49 CFR 1.5, unless otherwise noted.

Subpart A—General

SOURCE: 41 FR 56808, Dec. 30, 1976, unless otherwise noted.

§ 601.1 Purpose.

This part describes the organization or the Urban Mass Transportation Administration ("UMTA") an operating administration within the Department of Transportation. This part also describes the general responsibilities and authority of the officials directing the various offices of which UMTA is composed. In addition, this part describes the sources and locations of available UMTA program information.

§ 601.2 Organization of the Administration.

(a) The headquarters organization of UMTA is composed of 10 principal offices which function under the overall direction of the Urban Mass Transpor-

tation Administrator ("the Administrator") and Deputy Administrator. These offices are:

- (1) Office of the Administrator.
- (2) Office of the Associate Administrator for Administration.
- (3) Office of Chief Counsel.
- (4) Office of Civil Rights.
- (5) Office of Public Affairs.
- (6) Office of the Associate Administrator for Transit Assistance.
- (7) Office of the Associate Administrator for Policy and Program Development.
- (8) Office of the Associate Administrator for Transportation Planning.
- (9) Office of the Associate Administrator for Transportation Management and Demonstrations.
- (10) Office of the Associate Administrator for Technology Development and Deployment.

The Administrator receives staff support from the Executive Secretariat which coordinates internal document dissemination and project assignments and ensures policy compliance.

(b) The Office of the Administrator and the Offices of Chief Counsel, Public Affairs, the Associate Administrator for Administration, the Associate Administrator for Transit Assistance, the Associate Administrator for Policy and Program Development, and the Associate Administrator for Transportation Planning are located in the Department of Transportation Building, 400 7th Street, S.W., Washington, D.C. 20590. The Offices of Civil Rights, the Associate Administrator for Technology Development and Deployment, and the Associate Administrator for Transportation Management and Demonstrations are located in the Transpoint Building, 2100 2nd Street, S.W., Washington, D.C. 20590.

Region/States	Office/address	Telephone No.
I—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.	UMTA Representative, c/o Transportation Systems Center, Kendall Square, Room 277, 55 Broadway, Cambridge, Mass. 02142	617-494-2055
II—New York, New Jersey, Puerto Rico, and Virgin Islands.	UMTA Representative, 26 Federal Plaza, Suite 507, New York, N.Y. 10007	212-264-8162
III—Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia.	UMTA Representative, 434 Walnut St., Suite 1010, Philadelphia, Pa. 19106	215-597-8098
IV—Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.	UMTA Representative, 1720 Peachtree Rd. NW, Suite 400, Atlanta, Ga. 30309	404-526-3948
V—Illinois, Indiana, Minnesota, Michigan, Ohio, and Wisconsin.	UMTA Representative, 300 South Wacker Dr., Suite 1740, Chicago, Ill. 60606	312-353-0100

Region/States	Office/address	Telephone No.
VI—Arkansas, Louisiana, New Mexico, Oklahoma, and Texas	UMTA Representative, 819 Taylor St., Suite 3A32, Fort Worth, Tex. 76102	817-334-3757
VII—Iowa, Kansas, Missouri, and Nebraska	UMTA Representative, 6301 Park Hill Rd., Room 303, Kansas City, Mo. 64131	816-888-5053
VIII—Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming	UMTA Representative, Prudential Plaza, Suite 1822, 1050 17th St., Denver, Colo. 80202	303-637-3242
IX—Arizona, California, Hawaii, Nevada, Guam, and American Samoa	UMTA Representative, Two Embarcadero Center, Suite 620, San Francisco, Calif. 94111	415-556-3884
X—Alaska, Idaho, Oregon, and Washington	UMTA Representative, Federal Bldg., Suite 3106, 915 2d Ave., Seattle, Wash. 98174	206-442-4210

§ 601.3 General responsibilities.

The general responsibilities of each of the offices which comprise the headquarters organization of UMTA are:

(a) *Office of the Associate Administrator for Administration.* Directed by an Associate Administrator for Administration, this office provides general administrative support services for UMTA, including financial management, personnel administration, audit, procurement, logistical and management information systems.

(b) *Office of Chief Counsel.* Directed by a Chief Counsel, this office provides legal advice and services to the Administrator and other UMTA officials; coordinates with and provides support to the General Counsel of DOT on matters involving urban mass transportation; and, provides liaison between UMTA and the Department of Labor regarding the administration of section 13(c) of Urban Mass Transportation Act of 1964, as amended ("the Act").

(c) *Office of Public Affairs.* Directed by a Director of Public Affairs, this office advises and assists the Administrator in the area of public relations and in the dissemination to the public and the news media of information about UMTA programs, projects and activities.

(d) *Office of the Associate Administrator for Policy and Program Development.* Directed by an Associate Administrator for Policy and Development, this office advises and assists the Administrator in the development and evaluation of policies and plans for implementing the functions and programs authorized by the Act; coordinates UMTA activities with those of other agencies; and manages and administers the University Research

Program under section 11 of the Act (49 U.S.C. 1607(c)). This office has three organizational components: The Office of Policy Development; the Office of Program Evaluation; and the Office of Policy Research.

(e) *Office of the Associate Administrator for Transit Assistance.* Directed by an Associate Administrator for Transit Assistance, this office reviews and processes all applications for urban mass transportation capital and operating assistance grants and loans under sections 3, 4, 5, 16 and 17 of the Act (49 U.S.C. 1602, 1603, 1604, 1612 and 1613); reviews and processes applications for Federal assistance to the Washington Metropolitan Area Transit Authority (WMATA) under the Transportation Act of 1972 and the National Capital Area Transit Act of 1972; directs the evaluation and analysis of proposed annual programs and individual programs and individual projects; and approves and recommends for approval annual programs and individual projects. This office has three operating components which direct and coordinate post-approval grant activities: the Office of Grant Assistance, the Office of Program Support, and the Office of Program Analysis.

(f) *Office of the Associate Administrator for Transportation Planning.* Directed by an Associate Administrator for Transportation Planning, this office assists the Administrator in directing, coordinating and controlling UMTA's transportation planning assistance and reviews planning activities both in relation to UMTA-supported State and local actions and planning policy interaction within the Department of Transportation and with other Federal agencies; and administers grants to States and local

public bodies under section 9 of the Act (49 U.S.C. 1607a). This office has two organizational components: the Office of Planning Assistance and the Office of Planning methodology and Technical Support.

(g) *Office of the Associate Administrator for Transportation Management and Demonstrations.* Directed by an Associate Administrator for Transportation Management and Demonstrations, this office assists the Administrator in directing, conducting and controlling research and demonstration activities, including information dissemination, to foster the development of methods for improving transit management and operations from the perspectives of the operator and the user; administers grant and procurement contracts to demonstrate facilities, methods and techniques under section 6(a) of the Act (49 U.S.C. 1605), and managerial training fellowship grants under section 10 of the Act (49 U.S.C. 1607b). This office has two organizational components: the Office of Transit Management and the Office of Service and Methods Demonstrations.

(h) *Office of the Associate Administrator for Technology Development and Deployment.* Directed by an Associate Administrator for Technology Development and Deployment, this office is responsible for developing and administering a program of research, development, testing, evaluation, operational demonstration, product qualification, standardization, analysis, and information exchange concerning new products intended for use in transportation systems assisted by UMTA. The office is also responsible for UMTA's safety and system assurance function and for advising the Administrator on matters relating to technology. This office administers research, development and demonstration projects under section 6(a) of the Act (49 U.S.C. 1605).

(i) *Office of Civil Rights.* Directed by a Director of Civil Rights, this office advises and assists the Administrator and other UMTA officials in implementing compliance with applicable laws and directives pertaining to civil rights and equal employment opportunity, both within UMTA and in the

conduct of urban mass transportation projects and programs.

§ 601.4 Responsibilities of the Administrator.

The Administrator is responsible for the planning, direction and control of the activities of UMTA, and has authority to approve urban mass transportation grants, loans, and contracts. At the direction of the Administrator, the Deputy Administrator is authorized to act for and on behalf of the Administrator. In the event of the absence or disability of the Administrator, the following officials shall, in the order named, assume and perform the duties of the Administrator:

- (a) Deputy Administrator.
- (a-1) Executive Director.
- (b) Associate Administrator for Policy, Budget and Program Development.
- (c) Associate Administrator for Planning, Management and Demonstrations.
- (d) Chief Counsel.
- (e) Associate Administrator for Transit Assistance.
- (f) Associate Administrator for Technology Development and Deployment.
- (g) [Reserved]
- (h) Associate Administrator for Administration.

(Sec. 12, Urban Mass Transportation Act of 1964, 49 U.S.C. 1608 and 49 CFR 1.51)

[42 FR 59755, Nov. 21, 1977, as amended at 44 FR 32705, June 7, 1979; 45 FR 58540, Sept. 4, 1980]

Subpart B—Delegations

§ 601.10 Delegations of authority.

(a) Pursuant to authority delegated to the Administrator by 49 CFR 1.45(b) and 1.51 of the regulations of the Office of the Secretary of Transportation, the following powers and duties of the Administrator are redelegated to the officials indicated—

(1) The Associate Administrator for Transit Assistance is delegated authority to execute grant contracts, loan agreements, and amendments thereto with respect to approved capital and operating grants, loans and advanced land acquisition loan projects under

sections 3, 4, 5, 16 and 17 of the Act (49 U.S.C. 1602, 1603, 1604, 1612 and 1613); under limited circumstances review and approve applications for grants and grant amendments under the UMT Act and section 110 of the Federal-Aid Highway Act of 1976 and 121(a) of the Federal-Aid Highway Act of 1973, as amended (23 U.S.C. 103 (e) (4) and 142). The Associate Administrator is further authorized, in connection with the administration of those projects, to approve requisitions for funds, third-party contracts, and project budget amendments within previously authorized limits.

(2) The Associate Administrator for Policy and Program Development is delegated authority to execute and amend grant contracts and amendments for university research and training projects under section 11 of the Act (49 U.S.C. 1607c). The Associate Administrator is further authorized in connection with the administration of those projects to approve requisitions for funds, third-party contracts and project budget amendments within previously authorized limits.

(3) The Associate Administrator for Technology Development and Deployment is delegated authority to execute and amend grant contracts and procurement requests for approved projects under section 6(a) of the Act (49 U.S.C. 1605); The Associate Administrator is further authorized, in connection with the administration of grant contracts, procurement contracts, interagency reimbursable agreements and purchase orders, to approve requisitions for funds, third-party contracts, and project budget amendments within previously authorized limits.

(4) The Associate Administrator for Transportation Planning is delegated authority to execute and amend grant contracts and interagency agreements for planning, engineering, architectural feasibility and operational improvement study projects under section 9 of the Act (49 U.S.C. 1607a); review and approve grant applications and grant amendments requested pursuant to section 9 of the Act by urbanized areas of less than 500,000 population. The Associate Administrator is further authorized in connection with the ad-

ministration of such contracts to approve requisitions for funds, third-party contracts and project budget amendments within previously authorized limits.

(5) The Associate Administrator for Transportation Management and Demonstrations is delegated authority to execute and amend grant contracts for projects designed to demonstrate facilities, methods and techniques of transit management and operations under section 6(a) of the Act (49 U.S.C. 1605) and for approved managerial training fellowship projects under section 10 of the Act (49 U.S.C. 1607b). The Associate Administrator is further authorized, in connection with the administration of such projects to approve requisitions for project funds, third-party contracts and project budget amendments within previously authorized limits.

(b) All authority delegated to an official listed in paragraph (a) of this section may be redelegated by that official to one or more employees under his jurisdiction.

[41 FR 56809, Dec. 30, 1976]

Subpart C—Public Availability of Information

§ 601.20 Sources of information.

(a) The Urban Mass Transportation Administration has published a series of internal and external directives which contain the history, organization, policy, procedures, criteria, guidelines, interpretations and general regulations formulated and adopted by UMTA as guidance for grant recipients, and the general public. All directives are listed in UMTA Notice N 0000.17 "Directives Checklist."

(b) Single copies of the checklist or any directive may be obtained without charge upon written request either to the Director, Office of Public Affairs, Urban Mass Transportation Administration, Room 9314, 400 Seventh Street, SW., Washington, D.C. 20590, or any Urban Mass Transportation Administration regional office listed in § 601.2.

(c) The Urban Mass Transportation Administration maintains, under the

supervision of the Director of Public Affairs, a document inspection facility in Room 9314 at the headquarters of the Department of Transportation Building (Nassif Building), 400 Seventh Street, SW., Washington, D.C. 20590, through which the following UMTA documents may be obtained:

(1) An index to, and copies of, the internal and external directives of the Urban Mass Transportation Administration.

(2) Any proposed or final regulation issued by the Urban Mass Transportation Administration, and any background information for these regulations.

(d) Any person desiring to inspect any of these records, or obtain a copy thereof, must submit a request in writing, specifying the record to be inspected or copied to the Director, Office of Public Affairs, Urban Mass Transportation Administration, Room 9314, 400 Seventh Street, SW., Washington D.C., 20590, accompanied by the appropriate fee for copies prescribed in 49 CFR Part 7, Subpart I.

(5 U.S.C. 552; 49 U.S.C. 1657; 49 CFR 7.1(d))
(47 FR 55684, Dec. 13, 1982)

PART 603—CLAIMS UNDER THE FEDERAL CLAIMS COLLECTION ACT

Sec.

603.1 Purpose.

603.2 Delegation of authority to attempt collection.

603.3 Reservations of authority.

603.4 Determination of amount of obligation.

603.5 Claim determination procedures.

603.6 Standards for exercise of delegated claims collection authority.

603.7 Releases.

AUTHORITY: Federal Claims Collection Act of 1966 (80 Stat. 308, 31 U.S.C. 951-953).

SOURCE: 35 FR 17186, Nov. 7, 1970, unless otherwise noted.

§ 603.1 Purpose.

This part prescribes the procedures of the Urban Mass Transportation Administration with respect to the collection of claims of the United States arising out of the activities of the Urban Mass Transportation Administration; the compromise of those claims that do not exceed \$20,000; and

the suspension or termination of collection action.

§ 603.2 Delegation of authority to attempt collection.

(a) The authority of the Administrator, Urban Mass Transportation Administration, to attempt collection of claims of the United States arising out of the activities of the Urban Mass Transportation Administration is delegated to the Assistant Administrator for Administration. The authority delegated in this paragraph does not apply to any claim described in § 89.3 of this title.

(b) The Chief Counsel shall provide such legal advice and support as the Assistant Administrator for Administration requires in carrying out his duties under this section, and shall provide liaison with the General Accounting Office and the Department of Justice as necessary.

§ 603.3 Reservations of authority.

(a) The delegation of authority in § 603.2 does not include the authority to compromise, or suspend or terminate action to collect a claim in favor of the United States, or refer it to the General Accounting Office or to the Department of Justice for litigation.

(b) The authority to compromise a claim, not exceeding \$20,000, in favor of the United States arising out of the activities of the Urban Mass Transportation Administration is reserved to the Administrator and shall be exercised in accordance with 4 CFR Part 103.

(c) The authority to suspend or terminate collection action on a claim in favor of the United States arising out of the activities of the Urban Mass Transportation Administration is reserved to the Administrator and shall be exercised in accordance with 4 CFR Part 104.

(d) The authority to refer a claim in favor of the United States arising out of the activities of the Urban Mass Transportation Administration to the General Accounting Office or to the Department of Justice for litigation is reserved to the Administrator and shall be exercised in accordance with 4 CFR Part 105.

§ 603.4 Determination of amount of obligation.

If the Administrator believes that any individual, partnership, association, corporation or local public body is indebted or liable to the Federal Government upon a civil claim arising out of any program or project undertaken by the Urban Mass Transportation Administration, he shall investigate the matter and make a preliminary determination as to whether or not the debt or liability exists and the amount thereof.

§ 603.5 Claim determination procedures.

(a) As soon as reasonably practicable after the Administrator has made the preliminary determinations provided for in § 603.4, he shall notify the debtor in writing of the character and cause of the debt or liability and the amount thereof. The Administrator shall allow the debtor at least 30 but not more than 60 days to show cause, by affidavits and other documentary evidence and written argument, as to why the debt or liability is incorrect in fact or in law as to existence or amount. In the notice the Administrator shall also offer the debtor an opportunity, upon the debtor's admission of all or any part of the debt or liability, to propose within the same time period any remedial action on its part which it believes will remove or eliminate the basis for, or diminish the amount of, the debt or liability.

(b) Upon timely receipt of a response from the debtor denying the debt or liability in whole or in part and submitting written evidence and argument in support of the denial, or upon expiration of the time limit fixed in the notice, whichever occurs first, the Administrator shall review all of the evidence available to him, including any submitted by the debtor. The Administrator shall make or cause to be made any further investigation of the facts that he considers necessary. Based on the available evidence, the Administrator shall make a final determination as to the existence and amount of debtor's indebtedness or liability to the Government. However, if debtor's response to the notice is timely and admits the indebtedness in whole or in part but proposes to take remedial

action to remove or eliminate the basis for or diminish the amount thereof, and if the Administrator finds that the proposed remedial action is feasible, is in the best interests of the Government, and will further the objectives and purposes of the Urban Mass Transportation Act of 1964, as amended, he may delay making all or any portion of his final determination for a reasonable period of time (but not more than 6 months after the date of receipt of debtor's response) to permit debtor to take the remedial action and to present affidavits and other documentary evidence pertaining thereto.

(c) If he considers it necessary, the Administrator may provide for the holding of a hearing in connection with the preliminary or final determination of the existence or amount of a debtor's indebtedness or liability to the Government. Before a hearing is held under this subsection proper notice shall be given to all parties in interest. The hearing shall be conducted in accordance with section 556 of title 5, U.S.C., and reviewed by the Administrator in accordance with section 557 of title 5, U.S.C.

§ 603.6 Standards for exercise of delegated claims collection authority.

After the Administrator has determined the amount of a claim in favor of the United States arising out of the activities of the Urban Mass Transportation Administration, the Assistant Administrator for Administration shall take aggressive action, on a timely basis with effective follow-up, to collect that claim in accordance with the standards set forth in 4 CFR Part 102. The Assistant Administrator for Program Operations and the Assistant Administrator for Program Demonstrations shall provide such information and assistance as may be necessary to enable the Assistant Administrator for Administration to carry out his duties under this part.

§ 603.7 Releases.

The Assistant Administrator for Administration may execute and deliver a full release of a claim in favor of the United States in exchange for pay-

ment of the amount due the United States on that claim.

PART 604—CHARTER BUS OPERATIONS

Subpart A—General

Sec.

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Subpart C—Modification of Prior Agreements and Amendment of Applications for Assistance

- 604.20 Modification of prior agreements.
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- 604.40 Filing a complaint.
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Subpart F—Reports, Information and Records

- 604.50 Reports and information.
- 604.51 Records.

APPENDIX A

APPENDIX B—EXPENSE REPORTING.

AUTHORITY: Urban Mass Transportation Act, as amended (49 U.S.C. 1601 *et seq.*; 23 U.S.C. 103(e)(4); 23 U.S.C. 142 (a) and (c); and 49 CFR 1.51.

SOURCE: 41 FR 14123, Apr. 1, 1976, unless otherwise noted.

Subpart A—General

§ 604.1 Purpose.

(a) The purpose of this part is to prescribe policies and procedures governing the provision of charter bus services and the reporting of charter bus revenues and expenses by recipients of Federal financial assistance for the purchase or operation of buses under either the Urban Mass Transportation Act of 1964, as amended, or those provisions of title 23, U.S.C., that authorize the use of Federal-aid highway funds for the purchase of buses. The procedures of this part are designed to ensure that capital and operating assistance made available under these statutes will not be used in support of charter bus operations.

(b) By the terms of section 3(f) of the Urban Mass Transportation Act of 1964, as amended, which is made applicable to bus purchases, no Federal financial assistance may be provided for the purchase or operation of buses unless the grantee enters into an agreement with the Secretary of Transportation that the grantee, or any operator of mass transportation equipment for that grantee, will not engage in charter bus operations outside the urban area within which it provides regularly scheduled mass transportation service, except as permitted under that agreement.

§ 604.2 Scope.

These regulations apply to all recipients of Federal financial assistance for the purchase or operation of buses under: (a) The Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1601 *et seq.*); (b) 23 U.S.C. 142 (a) and (c); and (c) 23 U.S.C. 103(e)(4) who derived more than fifteen thousand dollars (\$15,000) in annual revenues, during its most recently completed fiscal year, from charter bus operations as defined herein.

§ 604.3 Definitions.

(a) Except as otherwise provided, terms defined in the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1604, 1608) are used in this part as so defined.

(b) For purposes of this part:

"The Acts" means the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1601 *et seq.*); 23 U.S.C. 142 (a) and (c); and 23 U.S.C. 103(e)(4).

"Administrator" means the Urban Mass Transportation Administrator or his designee.

"Agreement" means a contractual agreement required under section 3(f) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(f)) providing that a grantee, or any operator of mass transportation equipment for a grantee, will not engage in charter bus operations outside its urban areas except by the terms of that agreement.

"Applicant" means applicant for assistance under the Acts.

"Assistance" means Federal financial assistance for the purchase or operation of buses under the Acts.

"Grant contract" means the contract between the Government and the grantee which states the terms and conditions for assistance under the Acts.

"Certification of costs" means a statement prepared using generally accepted accounting principles, consistent with a grantee's regular accounting methods, and certified to be true and accurate by a grantee's chief financial officer. This statement indicates the elements of cost that are attributable to a grantee's charter bus operations. A grantee's statement must include depreciation expense on federally-assisted buses, facilities and equipment as an element of cost, and State and Federal taxes, whether or not the grantee is required to pay such taxes. This statement shall also give assurance that the revenues generated by charter bus operations are, and shall remain, equal or greater than the cost of providing the service. The period covered by a grantee's statement shall not be less than two or greater than four of its most recently completed fiscal quarters. (Costs which are subject to certification are listed in Appendix B of this part.)

"Charter bus operations" means transportation by bus of a group of persons who, pursuant to a common purpose, and under a single contract, at a fixed charge for the vehicles or service, in accordance with the carrier's tariff, have acquired the exclusive

use of a bus to travel together under an itinerary, either agreed on in advance, or modified after having left the place of origin. (This includes the incidental use of buses for the exclusive transportation of school students, personnel and equipment.)

"Cost allocation plan" means the documentation identifying, accumulating, and distributing cost attributable to charter bus operations together with the allocation methods used.

"Government" means the Government of the United States of America.

"Grantee" means a recipient of assistance under the Acts.

"Incidental" means charter bus operations which do not interfere with regularly scheduled service to the public (as defined in the Opinion of the Comptroller General of the United States, B-160204, December 7, 1966, which is attached as Appendix A of this part).

"Interested party" means an individual, partnership, corporation, association or public or private organization that has a financial interest which is adversely affected by the act or acts of a grantee with respect to charter bus operations.

"Urban area" means the entire area in which a local public body is authorized by appropriate local, State and Federal law to provide regularly scheduled mass transportation service. This includes all areas which are either: (a) Within an "urbanized area" as defined and fixed in accordance with 23 CFR Part 470, Subpart B; or (b) within an "urban area" or other built-up place as determined by the Secretary under section 12(c)(4) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1608(c)(4)).

[41 FR 14123, Apr. 1, 1976, as amended at 41 FR 56651, Dec. 29, 1976]

§ 604.4 Public hearing requirement.

Each applicant who engages or wishes to engage in charter bus operations outside of its urban area shall afford an adequate opportunity for the public to consider such operations at the time the applicant conducts public hearings to consider the eco-

nomic, social or environmental effects of its requested Federal financial assistance under section 3(d) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(d)).

[41 FR 6651, Dec. 29, 1976]

Subpart B—Charter Bus Agreements

§ 604.10 Purpose.

The purpose of this subpart is to formulate procedures for the development of an agreement concerning charter bus operations.

§ 604.11 Use of mass transportation equipment.

(a) No grantee or operator of mass transportation equipment shall engage in charter bus operations using buses, facilities, or equipment funded under the Acts except on an incidental basis in strict compliance with the Opinion of the Comptroller General of the United States, B-160204, December 7, 1966, in Appendix A of this part.

(b) Any of the following uses of mass transportation buses in charter bus operations will be presumed not to be incidental:

(1) Weekday charters which occur during peak morning and evening rush hours;

(2) Weekday charters which require buses to travel more than fifty miles beyond the grantee's urban area; or

(3) Weekday charters which require the use of a particular bus for more than a total of six hours in any one day.

§ 604.12 Agreement.

Every grantee shall as a condition of assistance, enter into a written agreement, that neither it nor any operator of mass transportation equipment on its behalf, will engage in any charter bus operations where points of origin or destination will be outside of its urban area except as permitted under that agreement. The agreement shall become a part of the grant contract between the Government and the grantee.

§ 604.13 Contents of agreement.

Except as provided in § 604.14 the agreement required by § 604.12 shall contain the following provisions:

Special Agreement—These provisions are found to constitute fair and equitable arrangements within the meaning of section 3(f) of the Urban Mass Transportation Act of 1964, as amended, to assure that the financial assistance granted by the Government under this mass transportation grant project will not enable the grantee, or any operator of the project equipment for the grantee, to foreclose private operators from the intercity charter bus industry where such private operators are willing and able to provide such service.

Accordingly, the parties agree as follows:

(1) The grantee agrees that neither it, nor any operator or project equipment, will engage in charter bus operations outside the urban area within which it provides regularly scheduled mass transportation services except as provided herein.

(2) The grantee, or any operator of project equipment, agrees that revenues generated by its charter bus operations are equal or greater than the cost of providing charter bus operations consistent with its cost allocation plan.

(3) The grantee, or any operator of project equipment, agrees that it will not establish any charter rate which is designed to foreclose competition by private charter bus operators.

(4) The grantee agrees that it will not engage in any practice which constitutes a means of avoiding the requirements of this agreement or part 604 of the Urban Mass Transportation regulations.

(5) The grantee agrees that the project facilities and equipment shall be used for the provision of mass transportation services within its urban area and that any use of project facilities and equipment in charter service will be incidental to and shall not interfere with the use of such facilities and equipment in mass transportation services to the public.

(6) If the Administrator determines that there has been a violation of this agreement, he may order such remedial measures as he may deem appropriate, including cancellation of this agreement. The Administrator may prohibit disbursement of funds under the grant contract to the grantee or operator if he determines that there has been a continuing pattern of violations of the terms of this agreement, and may bar future Federal financial assistance to the grantee.

§ 604.14 Other agreements.

Where the Administrator determines that the requirements of section 3(f) of the UMT Act and section 164(b) of the Highway Act can be met by an agreement which contains provisions other than those set forth in § 604.13 of this part, he may authorize the use of alternative provisions as he deems appropriate.

§ 604.15 Notice.

(a) Each applicant who engages or wishes to engage in charter bus operations outside of its urban area shall include the following in its application:

(1) A statement that it has provided written notice to all private charter bus operators operating in its urban area of its application for assistance and its proposed or existing charter bus operations;

(2) A statement that it has published in a newspaper of general circulation in its urban area a notice of its application and its proposed or existing charter bus operations;

(3) A certification of costs for the applicants proposed charter bus operations;

(4) A cost allocation plan.

(b) The notice required by paragraphs (a) (1) and (2) of this section shall include the following information:

(1) A description of the area within which the applicant is authorized by local, State and Federal law to conduct charter bus operations. Copies of the document granting such authority should be attached. Where there are disputes over jurisdiction pending that would affect charter bus operations this information should be included in that notice.

(2) An estimation of the number of each type of bus which will be employed on the proposed charter bus operations, and the number of weekdays or weekends those buses will be available for charter bus operations. The applicant shall also include a statement that the proposed use of these buses will not interfere with regularly scheduled mass transportation services.

(3) A statement of the time, date, and place of public hearings required

under section 3(d) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(d)), to be held on the application for assistance.

(c) Copies of the application for assistance and notice required by paragraph (a) of this section shall be available for inspection during the regular business hours at the office of the applicant.

[41 FR 14123, Apr. 1, 1973, as amended at 41 FR 56651, Dec. 29, 1976]

§ 604.16 Certification in lieu of notice.

If there are no private charter bus operators operating in the applicant's urban area, the applicant may so certify in its application in lieu of meeting the requirements of § 605.15. This certification shall be accompanied by a statement that the applicant has published, in a newspaper of general circulation in its urban area a notice stating that it has applied for assistance under the Acts as provided under § 604.15(b) and that it has certified that there are no private charter bus operators operating in its urban area. A copy of the notice as published shall be included.

§ 604.17 Comments by private charter bus operators.

Private charter bus operators may file written comments on an applicant's proposed or existing charter bus operations at the time of the public hearing held pursuant to section 3(d) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(d)). The comments of private charter bus operators must be submitted by the applicant to the Administrator together with the transcript of this public hearing required pursuant to 49 U.S.C. 1602(d).

§ 604.18 Approval of charter bus operations.

(a) The Administrator will consider the comments filed by private charter bus operators prior to making any findings regarding either the applicant's certification of costs, cost allocation plan, or other aspects of its proposed charter bus operations.

(b) After a showing by the applicant that it has complied with the require-

ments of 49 U.S.C. 1602(d) and this subpart, the Administrator may accept the applicant's certification of costs and otherwise approve its cost allocation plan and charter bus operations. Such acceptance and approval, however, is subject to audit and inspection which may be conducted at any time by the Government under § 604.52 of this part.

(c) If the Administrator finds that the applicant has not complied with the notice requirement of § 604.15, or otherwise finds that the applicant's certification of costs, cost allocation plan, or proposed charter bus operations are unacceptable, he will so notify the applicant in writing stating the reasons for his findings.

(d) Within 30 days after receiving notice of adverse findings from the Administrator, an applicant may file written objections to the Administrator's findings or submit a revised certification of costs, a revised cost allocation plan, or a revised proposal for its charter bus operations.

(e) Upon receipt of notice of acceptance of its certification of costs, cost allocation plan, and approval of its charter bus operations, the applicant may enter into an agreement with the Administrator under § 604.12 of this part.

Subpart C—Modification of Prior Agreements and Amendment of Applications for Assistance

§ 604.20 Modification of prior agreements.

(a) Any grantee which, prior to the adoption of this part, entered into an agreement required by section 164(a) of the Federal-Aid Highway Act of 1973, section 3(f) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(f)), not to engage in charter bus operations in competition with private providers of charter bus operations outside its urban area, or an interim agreement under section 3(f) allowing charter bus operations, shall seek modification of that agreement to conform to the requirements of this part in accordance with paragraphs (b) through (d) of this section.

(b) The grantee, if it engages or wishes to engage in charter bus operations outside of its urban area, shall

develop a certification of costs for its charter bus operations and send it with a statement of its proposed or existing charter operations and a cost allocation plan to private charter bus operators who originate service in the grantee's urban area.

(c) The grantee shall allow 30 days for persons receiving notice in this section to respond with written comments concerning its proposed or existing charter bus operations.

(d) After receiving written comments, the grantee shall send his proposal with written comments thereon to the Administrator for his review under § 604.18.

[41 FR 14123, Apr. 1, 1976, as amended at 41 FR 56651, Dec. 29, 1976]

§ 604.21 Amendment of applications for assistance.

Pending applications for assistance upon which public hearings have been held pursuant to section 3(d) of the UMT Act (49 U.S.C. 1602(d)), and applications which have been approved by the Administrator but for which no grant contract has been executed, shall be amended by the applicant to conform to this part by following the procedures of § 604.20(b) through (d). Any other applications for assistance shall comply with § 604.15 or § 604.16 of this part.

Subpart D—Revisions of Certification

§ 604.30 Revisions of certification.

(a) Certification of costs filed under this part may be revised by a grantee or any operator of project equipment by filing proposed revisions, properly certified, with the Administrator. Notice of those revisions shall be sent to private charter bus operators in the urban area, who may file comments with the Administrator within 15 days after receipt of notice. Proposed revisions shall become effective 30 days after filing unless within that period the Administrator finds them to be unacceptable and so notifies the party filing the certification of costs.

(b) UMTA may require that certification of costs be revised using the procedures in paragraph (a) of this section where the grantee has a gross

revenue change of 25 percent or more from the average two preceding fiscal quarters.

Subpart E—Complaint Procedures and Remedies

§ 604.40 Filing a complaint.

Any interested party may file a complaint with the Administrator alleging a violation or violations of terms of an agreement entered into pursuant to § 604.12. A complaint must be in writing and must specify in detail the action claimed to violate the agreement, and must be accompanied by evidence sufficient to enable the Administrator to make a preliminary determination as to whether probable cause exists to believe that a violation of the agreement has taken place.

§ 604.41 Notification to the respondent.

On receipt of any complaint under § 604.40, or on his own motion if at any time he will have reason to believe that a violation may have occurred, the Administrator will provide written notification to the grantee concerned (hereinafter called the "respondent"). The Administrator will inform the respondent of the conduct which constitutes a probable violation of the agreement.

§ 604.42 Accumulation of evidentiary material.

The Administrator will allow the respondent not more than 30 days to show cause, by submission of evidence, why no violation should be deemed to have occurred. A like period shall be allowed to the complainant, if any, during which he may submit evidence to rebut the evidence offered by the respondent. The Administrator may undertake such further investigation as he may deem necessary, including, in his discretion, the holding of an evidentiary hearing or hearings before an Administrative judge.

§ 604.43 Adjudication.

(a) After reviewing the results of such investigation, including hearing transcripts, if any, and all evidence submitted by the parties, the Administrator will make a written determina-

tion as to whether the respondent has engaged in charter bus operations in violation of terms of the agreement.

(b) If the Administrator determines that there has been a violation of this agreement, he may order such remedial measures as he may deem appropriate.

(c) If the Administrator should determine that a violation has occurred, he will include a specific statement as to whether there has been a continuing pattern of violations.

(d) The determination by the Administrator will include an analysis and explanation of his findings.

§ 604.44 Remedy where there has been a continuing pattern of violations.

If the Administrator determines, pursuant to this subpart, that there has been a continuing pattern of violations of the terms of the agreement, he may bar a grantee from the receipt of further financial assistance for mass transportation facilities and equipment.

§ 604.45 Judicial review.

The determination of the Administrator pursuant to this subpart will be final and conclusive on all parties, but shall be subject to judicial review pursuant to title 5 U.S.C. 701-706.

Subpart F—Reports, Information and Records

§ 604.50 Reports and information.

The Administrator may order any grantee or operator for a grantee, to file special or separate reports setting forth information relating to any transportation service rendered by such grantee or operator, in addition to any other reports required by this part.

§ 604.51 Records.

(a) Each grantee subject to this part shall maintain such records as are sufficient to demonstrate that its charter rates are in compliance with the terms of its agreement.

(b) Records required to be maintained under paragraph (a) of this section shall be made available for audit and inspection at any time upon the

request of an officer or employee of the Government.

(c) Upon the request of an authorized officer or employee of the Government any grantee which has filed a certification of costs pursuant to this part, shall:

(1) Specify the records that comply with paragraph (a) of this section; and
(2) Justify certification of costs.

(d) Each grantee required to maintain a record under this section shall preserve that record at least four years after the last day of the calendar year in which the record was made or events recorded in that record occurred, whichever is later.

APPENDIX A

COMPTROLLER GENERAL OF THE UNITED STATES,
WASHINGTON, D.C. 20548

B-160204.

DEC. 7, 1963.

DEAR MR. WILSON: The enclosure with your letter of October 4, 1966, concerns the legality of providing a grant under the Urban Mass Transportation Act of 1964 to the City of San Diego, (City), California. The problem involved arises in connection with the definition in subsection 9(d)(5) of the act, 49 U.S.C. 1608(d)(5), excluding charter or sightseeing service from the term "mass transportation."

It appears from the enclosure with your letter that the City originally included in its grant application a request for funds to purchase 8 buses designed for charter service. Subsequently the City amended its application by deleting a request for a portion of the funds attributable to the charter bus coaches. However, in addition to the 8 specially designed charter buses initially applied for, the City allegedly uses about 40 of its transit type buses to a substantial extent for charter-type services. In light of these factors surrounding the application by the City, the enclosure requests our opinion with regard to the legality of grants under the act as it applies to certain matters (in effect questions), which are numbered and quoted below and answered in the order presented.

Number one:

"The grant of funds to a City to purchase buses and equipment which are intended for substantial use in the general charter bus business as well as in the Mass Transportation type business."

The Urban Mass Transportation Act of 1964 does not authorize grants to assist in the purchase of buses or other equipment for any service other than urban mass

transportation service. Section 3(a) of the act limits the range of eligible facilities and equipment to "... buses and other rolling stock, and other real or personal property needed for an efficient and coordinated mass transportation system." In turn, "mass transportation" is defined, in section 9(d)(5) of the act, specifically to exclude charter service. We are advised by the Department of Housing and Urban Development (HUD) that under these provisions, the Department has limited its grants to the purchase of buses of types suitable to meet the needs of the particular kind of urban mass transportation service proposed to be furnished by the applicant.

HUD further advises that:

"One of the basic facts of urban mass transportation operations is that the need for rolling stock is far greater during the morning and evening rush hours on weekdays than at any other time. For that reason, any system which has sufficient rolling stock to meet the weekday rush-hour needs of its customers must have a substantial amount of equipment standing idle at other times, as well as drivers and other personnel being paid when there is little for them to do. To relieve this inefficient and uneconomical situation, quite a number of cities have offered incidental charter service using this idle equipment and personnel during the hours when the same are not needed for regularly scheduled runs. Among the cities so doing are Cleveland, Pittsburgh, Alameda, Tacoma, Detroit and Dallas.

"Such service contributes to the success of urban mass transportation operations by bringing in additional revenues and providing full employment to drivers and other employees. It may in some cases even reduce the need for Federal capital grant assistance.

"We do not consider that there is any violation of either the letter or the spirit of the Act as a result of such incidental use of buses in charter service. To guard against abuses, every capital facilities grant contract made by this Department contains the following provisions:

"Sec. 4. Use of Project Facilities and Equipment—The Public Body agrees that the Project facilities and equipment will be used for the provision of mass transportation service within its urban area for the period of the useful life of such facilities and equipment. . . . The Public Body further agrees that during the useful life of the Project facilities and equipment it will submit to HUD such financial statements and other data as may be deemed necessary to assure compliance with this Section."

It is our view that grants may be made to a city under section 3(a) of the act to purchase buses needed by the city for an effi-

cient and coordinated mass transportation system, even though the city may intend to use such buses for charter use when the buses are not needed on regularly scheduled runs (i.e. for mass transportation purposes) and would otherwise be idle.

Number two:

"Whether a grant of such funds is proper if charter bus use is incidental to mass public transportation operations. If so, what is the definition of 'incidental use.'"

We are advised by HUD that under its legislative authority, it cannot and does not take charter service requirements into consideration in any way in evaluating the needs of a local mass transportation system for buses or other equipment.

HUD further advises that:

"However, as indicated above, we are of the opinion that any lawful use of project equipment which does not detract from or interfere with the urban mass transportation service for which the equipment is needed would be deemed an incidental use of such equipment, and that such use of project equipment is entirely permissible under our legislation. What uses are in fact incidental, under this test, can be determined only on a case-by-case basis."

In view of what we stated above in answer to the first question, the first part of question two is answered in the affirmative.

As to the second part of the question, in *Security National Insurance Co. v. Security National Insurance Co.*, 246 F.2d 830, "incident" is defined as meaning "that which appertains to something else which is primary." Thus, we cannot say HUD's definition of "incidental use" as set forth above is unreasonable. Under the act involved grants may be made to purchase buses only if the buses are needed for an efficient and coordinated mass transportation system. It would appear that if buses are purchased in order to meet this need, and are, in fact, used to meet such need, the use of such buses for charter service when not needed for mass transportation services would, in effect, be an "incidental use," insofar as pertinent here. In our opinion such incidental use would not violate the provisions of the 1964 act.

Number three:

"The grant of funds for mass public transportation purposes to a City which has expressed an intent to engage in the general charter bus business when such funds would in effect constitute a subsidy to the City of its intended charter bus operations; i.e. freeing Municipal funds with which to purchase charter bus equipment."

Section 4(a) of the 1954 Act (49 U.S.C. 1603(a)) provides, in part, as follows:

"... The Administrator (now Secretary), on the basis of engineering studies, studies of economic feasibility, and data showing the nature and extent of expected utiliza-

tion of the facilities and equipment, shall estimate what portion of the cost of a project to be assisted under section 1602 of this title cannot be reasonably financed from revenues—which portion shall hereinafter be called 'net project cost'. The Federal grant for such a project shall not exceed two-thirds of the net project cost. The remainder of the net project cost shall be provided, in cash, from sources other than Federal funds * * *"

It is clear from the legislative history of the act involved that the "revenues" to be considered are mass transportation system revenues including any revenues from incidental charter operations. There is nothing in the language of the act which requires HUD to take into account the status of the general funds of an applicant city in determining how much capital grant assistance to extend to that city."

It should be noted that in a sense nearly every capital grant to a city constitutes a partial subsidy of every activity of the city which is supported by tax revenues, since it frees tax revenues for such other uses.

Number four:

"With specific reference to the application of the City of San Diego for funds under its application to the Department of Housing and Urban Development dated June 2, 1966, whether the Act permits a grant to purchase equipment wherein 25 per cent of such equipment will be used either exclusively or substantially in the operation of charter bus services."

As to the City of San Diego's grant application, we have been advised by HUD as follows:

"As explained above, the Act authorizes assistance only for facilities to be used in mass transportation service. We could not, therefore, assist San Diego in purchasing any equipment to be used 'exclusively' in the operation of charter bus service. Furthermore, as also explained above, assisted mass transportation equipment can be used only incidentally for such charter services.

"Whether equipment used 'substantially' in such service qualifies under this rule can be answered only in the light of the specifics of the San Diego situation. * * * we have already, during our preliminary review of the City's application, disallowed about \$150,000 of the proposed project cost which was allocated to the purchase of eight charter-type buses.

"The final application of the City of San Diego is presently under active consideration by this Department. In particular, we have requested the City to furnish additional information as to the nature and extent of the proposed use, if any, of project facilities and equipment in charter service, so that we can further evaluate the application under the criteria above set forth. We have

also requested similar information from Mr. Fredrick J. Ruane, who has filed a taxpayers' suit (Superior Court for San Diego County Civil #297329) against the City, contesting its authority to engage in charter bus operations."

As indicated above, it is clear that under the act in question grants may not legally be made to purchase buses to be used "exclusively" in the operation of charter bus service. However, in view of the purposes of the act involved it is our opinion that a city which has purchased with grant funds buses needed for an efficient mass transportation system, is not precluded by the act from using such buses for charter service during idle or off-peak periods when the buses are not needed for regularly scheduled runs. As indicated above, such a use would appear to be an incidental use.

The fourth question is answered accordingly.

As requested, the correspondence enclosed with your letter is returned herewith.

Sincerely yours,

FRANK H. WEITZEL,
Assistant Comptroller General
of the United States.

Enclosures.

The Honorable Bob Wilson,
House of Representatives.

APPENDIX B

EXPENSE REPORTING

List of Expenses

LABOR

1. Operators' Salaries and Wages
2. Other Salaries and Wages

FRINGE BENEFITS

1. FICA or Railroad Retirement
2. Pension Plans (including long-term disability insurance)
3. Hospital, Medical and Surgical Plans
4. Dental Plans
5. Life Insurance Plans
6. Short-Term Disability Insurance Plans
7. Unemployment Insurance
8. Workmen's Compensation Insurance or Federal Employees Liability Act Contributions
9. Sick Leave
10. Holiday (including all premiums paid for on holidays)
11. Vacation
12. Other Paid Absence (bereavement pay, military pay, jury duty pay, etc.)
13. Uniform and Work Clothing Allowances
14. Other Fringe Benefits
15. Distribution of Fringe Benefits

SERVICES

1. Management Service Fees
2. Advertising Fees
3. Professional and Technical Services
4. Temporary Help
5. Contract Maintenance Services
6. Custodial Services
7. Security Services
8. Propulsion Power
9. Utilities Other than Propulsion Power
10. Dues and Subscriptions
11. Travel and Meetings
12. Bridge, Tunnel and Highway Tolls
13. Other Services

MATERIALS AND SUPPLIES CONSUMED

1. Fuel and Lubricants
2. Tires and Tubes
3. Other Materials and Supplies

CASUALTY AND LIABILITY COSTS

1. Premiums for Physical Damage Insurance
2. Recoveries of Physical Damage Losses
3. Premiums for Public Liability and Property Damage Insurance
4. Payouts for Uninsured Public Liability and Property Damage Settlements
5. Provision for Uninsured Public Liability and Property Damage Settlements
6. Payouts for Insured Public Liability and Property Damage Settlements
7. Recoveries of Public Liability and Property Damage Settlements
8. Premiums for Other Corporate Insurance
9. Other Corporate Losses
10. Recoveries of Other Corporate Losses.

LEASES AND RENTALS

1. Transit Way and Transit Way Structures and Equipment
2. Passenger Stations
3. Passenger Parking Facilities
4. Passenger Revenue Vehicles
5. Service Vehicles
6. Operating Yards or Stations
7. Engine Houses, Car Shops and Garages
8. Power Generation and Distribution Facilities
9. Revenue Vehicle Movement Control Facilities
10. Data Processing Facilities
11. Revenue Collection and Processing Facilities
12. Other General Administration Facilities

DEPRECIATION AND AMORTIZATION

1. Transit Way and Transit Way Structures and Equipment
2. Passenger Stations
3. Passenger Parking Facilities
4. Passenger Revenue Vehicles

5. Service Vehicles
6. Operating Yards or Stations
7. Engine Houses, Car Shops and Garages
8. Power Generation and Distribution Facilities
9. Revenue Vehicle Movement Control Facilities
10. Data Processing Facilities
11. Revenue Collection and Processing Facilities
12. Other General Administration Facilities

PROPERTY RETIREMENT WRITE-OFFS

1. Property Retirement Write-Offs

INTEREST EXPENSE

1. Interest on Debt Obligations (net of interest capitalized)

OTHER TAXES

1. Federal Income Tax
2. State Income Tax
3. Property Tax
4. Vehicle Licensing and Registration Fees
5. Fuel and Lubricant Taxes
6. Other Taxes

EXPENSE TRANSFERS

1. Function Reclassifications
2. Expense Reclassifications
3. Capitalization of Nonoperating Costs

SUBSIDY PAYMENTS

1. Purchased Transportation Service

MARCH 29, 1976.

INFLATIONARY IMPACT STATEMENT

FINAL REGULATIONS

Charter Bus Operations

I certify that, in accordance with Executive Order 11821, dated November 27, 1974, and Departmental implementing instructions, and Inflationary Impact Statement is not required for the final regulations on Charter Bus Operations.

ROBERT E. PATRICELLI,
Urban Mass Transportation
Administrator.

PART 605—SCHOOL BUS OPERATIONS

Subpart A—General

- Sec.
- 605.1 Purpose.
 - 605.2 Scope.
 - 605.3 Definitions.
 - 605.4 Public hearing requirement.

Sec.

Subpart B—School Bus Agreements

- 605.10 Purpose.
- 605.11 Exemptions.
- 605.12 Use of project equipment.
- 605.13 Tripper service.
- 605.14 Agreement.
- 605.15 Content of agreement.
- 605.16 Notice.
- 605.17 Certification in lieu of notice.
- 605.18 Comments by private school bus operators.
- 605.19 Approval of school bus operations.

Subpart C—Modification of Prior Agreements and Amendment of Application for Assistance

- 605.20 Modification of prior agreements.
- 605.21 Amendment of applications for assistance.

Subpart D—Complaint Procedures and Remedies

- 605.30 Filing a complaint.
- 605.31 Notification to the respondent.
- 605.32 Accumulation of evidentiary material.
- 605.33 Adjudication.
- 605.34 Remedy where there has been a violation of the agreement.
- 605.35 Judicial review.

Subpart E—Reporting and Records

- 605.40 Reports and information.

APPENDIX A

AUTHORITY: Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1601 *et seq.*); 23 U.S.C. 103(e)(4); 23 U.S.C. 142 (a) and (c); and 49 CFR 1.51.

SOURCE: 41 FR 14128, Apr. 1, 1976, unless otherwise noted.

Subpart A—General

- § 605.1 Purpose.

(a) The purpose of this part is to prescribe policies and procedures to implement section 109(a) of the National Mass Transportation Assistance Act of 1974 (Pub. L. 93-503; November 26, 1974; 88 Stat. 1565). Section 109(a) adds a new section 3(g) to the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(g)) and differs from section 164(b) of the Federal-Aid Highway Act of 1973 (49 U.S.C. 1602a(b)) in that section 3(g) applies to all grants for the construction or

operation of mass transportation facilities and equipment under the Urban Mass Transportation Act, and is not limited to grants for the purchase of buses as is section 164(b).

(b) By the terms of section 3(g) no Federal financial assistance may be provided for the construction or operation of facilities and equipment for use in providing public mass transportation service to an applicant unless the applicant and the Administrator enter into an agreement that the applicant will not engage in school bus operations exclusively for the transportation of students and school personnel, in competition with private school bus operators.

§ 605.2 Scope.

These regulations apply to all recipients of financial assistance for the construction or operation of facilities and equipment for use in providing mass transportation under: (a) The Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1601 *et seq.*); (b) 23 U.S.C. 142 (a) and (c); and 23 U.S.C. 103 (e)(4).

§ 605.3 Definitions.

(a) Except as otherwise provided, terms defined in the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1604, 1608) are used in this part as so defined.

(b) For purposes of this part—

"The Acts" means the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1601 *et seq.*); 23 U.S.C. 142 (a) and (c); and 23 U.S.C. 103(e)(4).

"Administrator" means the Urban Mass Transportation Administrator or his designee.

"Adequate transportation" means transportation for students and school personnel which the Administrator determines conforms to applicable safety laws; is on time; poses a minimum of discipline problems; is not subject to fluctuating rates; and is operated efficiently and in harmony with state educational goals and programs.

"Agreement" means a contractual agreement required under section 3(g) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(g)).

"Applicant" means applicant for assistance under the Acts.

"Assistance" means Federal financial assistance for the purchase of buses and the construction or operation of facilities and equipment for use in providing mass transportation services under the Acts, but does not include research, development and demonstration projects funded under the Acts.

"Grant contract" means the contract between the Government and the grantee which states the terms and conditions for assistance under the Acts.

"Government" means the Government of the United States of America.

"Grantee" means a recipient of assistance under the Acts.

"Incidental" means the transportation of school students, personnel and equipment in charter bus operations during off peak hours which does not interfere with regularly scheduled service to the public (as defined in the Opinion of the Comptroller General of the United States, B160204, December 7, 1966, which is attached as Appendix A of this part).

"Interested party" means an individual, partnership, corporation, association or public or private organization that has a financial interest which is adversely affected by the act or acts of a grantee with respect to school bus operations.

"Reasonable Rates" means rates found by the Administration to be fair and equitable taking into consideration the local conditions which surround the area where the rate is in question.

"School bus operations" means transportation by bus exclusively for school students, personnel and equipment in Type I and Type II school vehicles as defined in Highway Safety Program Standard No. 17.

"Tripper service" means regularly scheduled mass transportation service which is open to the public, and which is designed or modified to accommodate the needs of school students and personnel, using various fare collections or subsidy systems. Buses used in tripper service must be clearly marked as open to the public and may not carry designations such as "school

bus" or "school special". These buses may stop only at a grantee or operator's regular service stop. All routes traveled by tripper buses must be within a grantee's or operator's regular route service as indicated in their published route schedules.

"Urban area" means the entire area in which a local public body is authorized by appropriate local, State and Federal law to provide regularly scheduled mass transportation service. This includes all areas which are either: (a) Within an "urbanized area" as defined and fixed in accordance with 23 CFR Part 470, Subpart B; or (b) within an "urban area" or other built-up place as determined by the Secretary under section 12(c)(4) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1608(c)(4)).

§ 605.4 Public hearing requirement.

Each applicant who engages or wishes to engage in school bus operations shall afford an adequate opportunity for the public to consider such operations at the time the applicant conducts public hearings to consider the economic, social or environmental effects of its requested Federal financial assistance under section 3(d) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(d)).

Subpart B—School Bus Agreements

§ 605.10 Purpose.

The purpose of this subpart is to formulate procedures for the development of an agreement concerning school bus operations.

§ 605.11 Exemptions.

A grantee or applicant may not engage in school bus operations in competition with private school bus operators unless it demonstrates to the satisfaction of the Administrator as follows:

(a) That it operates a school system in its urban area and also operates a separate and exclusive school bus program for that school system; or

(b) That private school bus operators in the urban area are unable to provide adequate transportation, at a

reasonable rate, and in conformance with applicable safety standards; or

(c) That it is a state or local public body or agency thereof (or a direct predecessor in interest which has acquired the function of so transporting schoolchildren and personnel along with facilities to be used therefor) who was so engaged in school bus operations:

(1) In the case of a grant involving the purchase of buses—anytime during the 12-month period immediately prior to August 13, 1973.

(2) In the case of a grant for construction or operating of facilities and equipment made pursuant to the UMT Act as amended (49 U.S.C. 1601 *et seq.*), anytime during the 12-month period immediately prior to November 26, 1974.

§ 605.12 Use of project equipment.

No grantee or operator of project equipment shall engage in school bus operations using buses, facilities or equipment funded under the Acts. A grantee or operator may, however, use such buses, facilities and equipment for the transportation of school students, personnel and equipment in incidental charter bus operations. Such use of project equipment is subject to Part 604 of Urban Mass Transportation Regulations.

§ 605.13 Tripper service.

The prohibition against the use of buses, facilities and equipment funded under the Acts shall not apply to tripper service.

§ 605.14 Agreement.

Except as provided in § 605.11 no assistance shall be provided under the Acts unless the applicant and the Administrator shall have first entered into a written agreement that the applicant will not engage in school bus operations exclusively for the transportation of students and school personnel in competition with private school bus operators.

§ 605.15 Content of agreement.

(a) Every grantee who is not authorized by the Administrator under § 605.11 of this part to engage in

school bus operations shall, as a condition of assistance, enter into a written agreement required by § 605.14 which shall contain the following provisions:

(1) The grantee and any operator of project equipment agrees that it will not engage in school bus operations in competition with private school bus operators.

(2) The grantee agrees that it will not engage in any practice which constitutes a means of avoiding the requirements of this agreement, Part 605 of the Urban Mass Transportation Regulations, or section 164(b) of the Federal-Aid Highway Act of 1973 (49 U.S.C. 1602a(b)).

(b) Every grantee who obtains authorization from the Administrator to engage in school bus operations under § 605.11 of this part shall, as a condition of assistance, enter into a written agreement required by § 605.14 of this part which contains the following provisions:

(1) The grantee agrees that neither it nor any operator of project equipment will engage in school bus operations in competition with private school bus operators except as provided herein.

(2) The grantee, or any operator of project equipment, agrees to promptly notify the Administrator of any changes in its operations which might jeopardize the continuation of an exemption under § 605.11.

(3) The grantee agrees that it will not engage in any practice which constitutes a means of avoiding the requirements of this agreement, Part 605 of the Urban Mass Transportation Administration regulations or section 164(b) of the Federal-Aid Highway Act of 1973 (49 U.S.C. 1602a(b)).

(4) The grantee agrees that the project facilities and equipment shall be used for the provision of mass transportation services within its urban area and that any other use of project facilities and equipment will be incidental to and shall not interfere with the use of such facilities and equipment in mass transportation service to the public.

§ 605.16 Notice.

(a) Each applicant who engages or wishes to engage in school bus oper-

ations shall include the following in its application:

(1) A statement that it has provided written notice to all private school bus operators operating in the urban area of its application for assistance and its proposed or existing school bus operations;

(2) A statement that it has published in a newspaper of general circulation in its urban area a notice of its application and its proposed or existing school bus operations;

(b) The notice required by paragraphs (a) (1) and (2) of this section shall include the following information:

(1) A description of the area to be served by the applicant.

(2) An estimation of the number of each type of bus which will be employed on the proposed school bus operations, and the number of weekdays those buses will be available for school bus operations.

(3) A statement of the time, date, and place of public hearings required under section 3(d) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(d)), to be held on the application for assistance.

(4) A statement setting forth reasons the applicant feels it should be allowed to engage in school bus operations under § 605.11 of this part.

(c) Copies of the application for assistance and notice required by paragraph (a) of this shall be available for inspection during the regular business hours at the office of the applicant.

§ 605.17 Certification in lieu of notice.

If there are no private school bus operators operating in the applicant's urban area, the applicant may so certify in its application in lieu of meeting the requirements of § 605.16. This certification shall be accompanied by a statement that the applicant has published, in a newspaper of general circulation in its urban area, a notice stating that it has applied for assistance as provided under § 605.16(b) and that it has certified that there are no private school bus operators operating in its urban area. A copy of the notice as published shall be included.

§ 605.18 Comments by private school bus operators.

Private school bus operators may file written comments on an applicant's proposed or existing school bus operations at the time of the public hearing held pursuant to section 3(d) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(d)). The comments of private school bus operators must be submitted by the applicant to the Administrator together with the transcript of this public hearing.

§ 605.19 Approval of school bus operations.

(a) The Administrator will consider the comments filed by private school bus operators prior to making any findings regarding the applicant's proposed or existing school bus operations.

(b) After a showing by the applicant that it has complied with the requirements of 49 U.S.C. 1602(d) and this subpart, the Administrator may approve its school bus operations.

(c) If the Administrator finds that the applicant has not complied with the notice requirement of this part or otherwise finds that the applicant's proposed or existing school bus operations are unacceptable, he will so notify the applicant in writing, stating the reasons for his findings.

(d) Within 20 days after receiving notice of adverse findings from the Administrator, an applicant may file written objections to the Administrator's findings or submit a revised proposal for its school bus operations. If an applicant revises its proposed or existing school bus operations, it shall mail a copy of these revisions along with the findings of the administrator to private school bus operators required to be notified under § 605.16.

(e) Private school bus operators who receive notice under paragraph (d) of this section may within 20 days after receipt of notice file written comments on the proposed revisions with the Administrator. The Administrator will consider these comments prior to his approval of a proposed revision by the applicant.

(f) Upon receipt of notice of approval of its school bus operations, the ap-

plicant may enter into an agreement with the Administrator under § 605.14.

Subpart C—Modification of Prior Agreements and Amendment of Application for Assistance

§ 605.20 Modification of prior agreements.

(a) Any grantee which, prior to the adoption of this part, entered into an agreement required by section 164(b) of the Federal-Aid Highway Act of 1973 (49 U.S.C. 1602(a)(b)), or section 3(g) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(g)), who engages or wishes to engage in school bus operations in competition with private school bus operators, shall seek modification of that agreement in accordance with paragraphs (b) through (d) of this section.

(b) The grantee shall develop a statement setting forth in detail the reasons it feels it should be allowed to engage in school bus operations under § 605.11 of this part. A copy of the statement should be provided private school bus operators who provide service in the grantee's urban area.

(c) The grantee shall allow 30 days for persons receiving notice under this section to respond with written comments concerning its proposed or existing school bus operations.

(d) After receiving written comments, the grantee shall send his proposal with written comments thereon to the Administrator for his review under § 605.17.

§ 605.21 Amendment of applications for assistance.

Pending applications for assistance upon which public hearings have been held pursuant to section 3(d) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602(d)), and applications which have been approved by the Administrator but for which no grant contract has been executed, shall be amended by the applicant to conform to this part by following the procedures of § 605.20(b) through (d).

Subpart D—Complaint Procedures and Remedies

§ 605.30 Filing a complaint.

Any interested party may file a complaint with the Administrator alleging a violation or violations of terms of an agreement entered into pursuant to § 605.14. A complaint must be in writing, must specify in detail the action claimed to violate the agreement, and must be accompanied by evidence sufficient to enable the Administrator to make a preliminary determination as to whether probable cause exists to believe that a violation of the agreement has taken place.

§ 605.31 Notification to the respondent.

On receipt of any complaint under § 605.30, or on his own motion if at any time he shall have reason to believe that a violation may have occurred, the Administrator will provide written notification to the grantee concerned (hereinafter called "the respondent") that a violation has probably occurred. The Administrator will inform the respondent of the conduct which constitutes a probable violation of the agreement.

§ 605.32 Accumulation of evidentiary material.

The Administrator will allow the respondent not more than 30 days to show cause, by submission of evidence, why no violation should be deemed to have occurred. A like period shall be allowed to the complainant, if any, during which he may submit evidence to rebut the evidence offered by the respondent. The Administrator may undertake such further investigation, as he may deem necessary, including, in his discretion, the holding of an evidentiary hearing or hearings.

§ 605.33 Adjudication.

(a) After reviewing the results of such investigation, including hearing transcripts, if any, and all evidence submitted by the parties, the Administrator will make a written determination as to whether the respondent has engaged in school bus operations in violation of the terms of the agreement.

(b) If the Administrator determines that there has been a violation of the agreement, he will order such remedial measures as he may deem appropriate.

(c) The determination by the Administrator will include an analysis and explanation of his findings.

§ 605.34 Remedy where there has been a violation of the agreement.

If the Administrator determines, pursuant to this subpart, that there has been a violation of the terms of the agreement, he may bar a grantee or operator from the receipt of further financial assistance for mass transportation facilities and equipment.

§ 605.35 Judicial review.

The determination of the Administrator pursuant to this subpart shall be final and conclusive on all parties, but shall be subject to judicial review pursuant to title 5 U.S.C. 701-706.

Subpart E—Reporting and Records

§ 605.40 Reports and information.

The Administrator may order any grantee or operator for the grantee, to file special or separate reports setting forth information relating to any transportation service rendered by such grantee or operator, in addition to any other reports required by this part.

APPENDIX A

COMPTROLLER GENERAL OF THE
UNITED STATES,
Washington, D.C., December 7, 1966.

DEAR MR. WILSON: The enclosure with your letter of October 4, 1966, concerns the legality of providing a grant under the Urban Mass Transportation Act of 1964 to the City of San Diego, (City), California. The problem involved arises in connection with the definition in subsection 9(d)(5) of the act, 49 U.S.C. 1608(d)(5), excluding charter or sightseeing service from the term "mass transportation."

It appears from the enclosure with your letter that the City originally included in its grant application a request for funds to purchase 8 buses designed for charter service. Subsequently the City amended its application by deleting a request for a portion of the funds attributable to the charter bus

coaches. However, in addition to the 8 specially designed charter buses initially applied for, the City allegedly uses about 40 of its transit type buses to a substantial extent for charter-type services. In light of these factors surrounding the application by the City, the enclosure requests our opinion with regard to the legality of grants under the act as it applies to certain matters (in effect questions), which are numbered and quoted below and answered in the order presented.

Number one:

"The grant of funds to a City to purchase buses and equipment which are intended for substantial use in the general charter bus business as well as in the Mass Transportation type business."

The Urban Mass Transportation Act of 1964 does not authorize grants to assist in the purchase of buses or other equipment for any service other than urban mass transportation service. Section 3(a) of the act limits the range of eligible facilities and equipment to "buses and other rolling stock, and other real or personal property needed for an efficient and coordinated mass transportation system." In turn, "mass transportation" is defined, in section 9(d)(5) of the act, specifically to exclude charter service. We are advised by the Department of Housing and Urban Development (HUD) that under these provisions, the Department has limited its grants to the purchase of buses of types suitable to meet the needs of the particular kind of urban mass transportation proposed to be furnished by the applicant."

HUD further advises that:

"One of the basic facts of urban mass transportation operations is that the need for rolling stock is far greater during the morning and evening rush hours on weekdays than at any other time. For that reason, any system which has sufficient rolling stock to meet the weekday rush-hour needs of its customers must have a substantial amount of equipment standing idle at other times, as well as drivers and other personnel being paid when there is little for them to do. To relieve this inefficient and uneconomical situation, quite a number of cities have offered incidental charter service using this idle equipment and personnel during the hours when the same are not needed for regularly scheduled runs. Among the cities so doing are Cleveland, Pittsburgh, Alameda, Tacoma, Detroit and Dallas.

"Such service contributes to the success of urban mass transportation operations by bringing in additional revenues and providing full employment to drivers and other employees. It may in some cases even reduce the need for Federal capital grant assistance.

"We do not consider that there is any violation of either the letter or the spirit of the Act as a result of such incidental use of buses in charter service. To guard against abuses, every capital facilities grant contract made by this Department contains the following provisions:

"Sec. 4. *Use of Project Facilities and Equipment*—The Public Body agrees that the Project facilities and equipment will be used for the provision of mass transportation service within its urban area for the period of the useful life of such facilities and equipment. . . . The Public Body further agrees that during the useful life of the Project facilities and equipment it will submit to HUD such financial statements and other data as may be deemed necessary to assure compliance with this Section."

It is our view that grants may be made to a city under section 3(a) of the act to purchase buses needed by the city for an efficient and coordinated mass transportation system, even though the city may intend to use such buses for charter use when the buses are not needed on regularly scheduled runs (i.e. for mass transportation purposes) and would otherwise be idle.

Number two:

"Whether a grant of such funds is proper if charter bus use is incidental to mass public transportation operations. If so, what is the definition of 'incidental use.'"

We are advised by HUD that under its legislative authority, it cannot and does not take charter service requirements into consideration in any way in evaluating the needs of a local mass transportation system for buses or other equipment.

HUD further advises that:

"However, as indicated above, we are of the opinion that any lawful use of project equipment which does not detract from or interfere with the urban mass transportation service for which the equipment is needed would be deemed an incidental use of such equipment, and that such use of project equipment is entirely permissible under our legislation. What uses are in fact incidental, under this test, can be determined only on a case-by-case basis."

In view of what we stated above in answer to the first question, the first part of question two is answered in the affirmative.

As to the second part of the question, in *Security National Insurance Co. v. Secuoyah Marina*, 246F.2d 830, "incidental" is defined as meaning "that which appertains to something else which is primary." Thus, we cannot say HUD's definition of "incidental use" as set forth above is unreasonable. Under the act involved grants may be made to purchase buses only if the buses are needed for an efficient and coordinated mass transportation system. It would appear that if buses are purchased in order

to meet this need, and are, in fact, used to meet such need, the use of such buses for charter service when not needed for mass transportation services would, in effect, be an "incidental use," insofar as pertinent here. In our opinion such incidental use would not violate the provisions of the 1964 act.

Number three:

"The grant of funds for mass public transportation purposes to a City which has expressed an intent to engage in the general charter bus business when such funds would in effect constitute a subsidy to the City of its intended charter bus operations, i.e. freeing Municipal funds with which to purchase charter bus equipment."

Section 4(a) of the 1954 Act (49 U.S.C. 1603(a)) provides, in part, as follows:

"* * * The Administrator (now Secretary), on the basis of engineering studies, studies of economic feasibility, and data showing the nature and extent of expected utilization of the facilities and equipment, shall estimate what portion of the cost of a project to be assisted under section 1602 of this title cannot be reasonably financed from revenues—which portion shall hereinafter be called 'net project cost'. The Federal grant for such a project shall not exceed two-thirds of the net project cost. The remainder of the net project cost shall be provided, in cash, from sources other than Federal funds * * *."

It is clear from the legislative history of the act involved that the "revenues" to be considered are mass transportation system revenues including any revenues from incidental charter operations. There is nothing in the language of the act which requires HUD to take into account the status of the general funds of an applicant city in determining how much capital grant assistance to extend to that city.

It should be noted that in a sense nearly every capital grant to a city constitutes a partial subsidy of every activity of the city which is supported by tax revenues, since it frees tax revenues for such other uses.

Number four:

"With specific reference to the application of the City of San Diego for funds under its application to the Department of Housing and Urban Development dated June 2, 1966, whether the Act permits a grant to purchase equipment wherein 25 percent of such equipment will be used either exclusively or substantially in the operation of charter bus services."

As to the City of San Diego's grant application, we have been advised by HUD as follows:

"As explained above, the Act authorizes assistance only for facilities to be used in mass transportation service. We could not, therefore, assist San Diego in purchasing any equipment to be used 'exclusively' in

the operation of charter bus service. Furthermore, as also explained above, assisted mass transportation equipment can be used only incidentally for such charter services.

"Whether equipment used 'substantially' in such service qualifies under this rule can be answered only in the light of the specifics of the San Diego situation. * * * we have already, during our preliminary review of the City's application, disallowed about \$150,000 of the proposed project cost which was allocated to the purchase of eight charter-type buses.

"The final application of the City of San Diego is presently under active consideration by this Department. In particular, we have requested the City to furnish additional information as to the nature and extent of the proposed use, if any, of project facilities and equipment in charter service, so that we can further evaluate the application under the criteria above set forth. We have also requested similar information from Mr. Fredrick J. Ruane, who has filed a taxpayers' suit (Superior Court for San Diego County Civil #297329) against the City, contesting its authority to engage in charter bus operations."

As indicated above, it is clear that under the act in question grants may not legally be made to purchase buses to be used "exclusively" in the operation of charter bus service. However, in view of the purposes of the act involved it is our opinion that a city which has purchased with grant funds buses needed for an efficient mass transportation system, is not precluded by the act from using such buses for charter service during idle or off-peak periods when the buses are not needed for regularly scheduled runs. As indicated above, such a use would appear to be an incidental use.

The fourth question is answered accordingly.

As requested, the correspondence enclosed with your letter is returned herewith.

Sincerely yours,

FRANK H. WEITZEL,
Assistant Comptroller General
of the United States.

Enclosures:

The Honorable Bob Wilson, House of Representatives.

MARCH 29, 1976.

INFLATIONARY IMPACT STATEMENT

FINAL REGULATIONS ON SCHOOL BUS OPERATIONS

I certify that, in accordance with Executive Order 11821, dated November 27, 1974, and Departmental implementing instructions, an Inflationary Impact Statement is

not required for final regulations on School Bus Operations.

ROBERT E. PATRICELLI,
Urban Mass Transportation
Administrator.

PART 609—TRANSPORTATION FOR ELDERLY AND HANDICAPPED PERSONS

Sec.

609.1 Purpose.

609.3 Definitions.

609.5 Applicability.

609.7 Transportation planning in urbanized areas.

609.9 Transportation planning in nonurbanized areas.

609.11 Applications for capital or operating assistance.

609.13 Fixed facilities.

609.15 Buses.

609.17 Rapid rail vehicles.

609.19 Light rail vehicles.

609.21 Other vehicles.

609.23 Reduced fare.

609.25 Waiver.

AUTHORITY: Secs. 5 and 16, Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1604, 1612); sec. 165(b), Federal-Aid Highway Act of 1973, as amended (23 U.S.C. 142 nt.); sec. 504, Rehabilitation Act of 1973 (29 U.S.C. 794); 49 CFR 1.51.

SOURCE: 41 FR 18239, Apr. 30, 1976, unless otherwise noted.

§ 609.1 Purpose.

The purpose of this part is to establish formally the requirements of the Urban Mass Transportation Administration (UMTA) on transportation for elderly and handicapped persons.

§ 609.3 Definitions.

As used herein:

"Elderly and handicapped persons" means those individuals who, by reason of illness, injury, age, congenital malfunction, or other permanent or temporary incapacity or disability, including those who are nonambulatory wheelchair-bound and those with semi-ambulatory capabilities, are unable without special facilities or special planning or design to utilize mass transportation facilities and services as effectively as persons who are not so affected.

§ 609.5 Applicability.

This part, which applies to projects approved by the Urban Mass Transportation Administrator on or after May 31, 1976, applies to all planning, capital, and operating assistance projects receiving Federal financial assistance under sections 3, 5, or 9 of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602, 1604, or 1607a), and nonhighway public mass transportation projects receiving Federal financial assistance under: (1) Subsection (a) or (c) of section 142 of title 23, United States Code; and (2) paragraph (4) of subsection (e) of section 103, title 23, United States Code. However, under certain circumstances evident in §§ 609.13 through 609.21, the latter sections apply to fixed facilities and vehicles included in projects approved before May 31, 1976. Sections in this part on capital assistance applications, fixed facilities, and vehicles apply expressly to capital assistance projects receiving Federal financial assistance under any of the above statutes.

§ 609.7 Transportation planning in urbanized areas.

General requirements for transportation planning in urbanized areas are found in joint UMTA-Federal Highway Administration regulations (23 CFR Part 450 and 49 CFR Part 613). These regulations require the urban transportation planning process to include special efforts to plan public mass transportation facilities and services that can effectively be utilized by elderly and handicapped persons. UMTA and FHWA have added a supplementary statement on the special efforts requirement as an appendix to the joint planning regulations. Satisfactory special efforts in this area is an express condition (49 CFR 613.204) for UMTA project approvals required by 23 CFR 450.320, and UMTA has added a supplementary statement on that requirement as an appendix to 49 CFR Part 613.

§ 609.9 Transportation planning in nonurbanized areas.

Before a capital assistance project can be approved in a nonurbanized

area, the local planning process must include special efforts to plan public mass transportation facilities and services that can effectively be utilized by elderly and handicapped persons.

§ 609.11 Applications for capital or operating assistance.

Applications for capital or operating assistance shall include assurance(s) and descriptive material on transportation for elderly and handicapped persons in accordance with current application instructions.

§ 609.13 Fixed facilities.

(a) Except as otherwise provided in paragraph (c) of this section, every fixed facility—including every station, terminal, building or other facility—designed, constructed, or altered on or after May 31, 1976, with UMTA assistance, the intended use for which will require either that such fixed facility be accessible to the public or may result in the employment therein of physically handicapped persons, shall be designed, constructed, or altered in accordance with the minimum standards in the "American Standard Specifications for Making Building and Facilities Accessible to, and Usable by, the Physically Handicapped, Number A117.1—R 1971," approved by the American Standards Association, Inc. (subsequently changed to American National Standards Institute, Inc.) (ANSI).

(b) In addition to the ANSI standards of paragraph (a) of this section, the following standards apply to rail facilities covered by that paragraph:

(1) *Travel distance for wheelchair users.* In designing new underground or elevated transit stations, careful attention should be given to the location and number of elevators or other vertical circulation devices in order to minimize the extra distance which wheelchair users and other persons who cannot negotiate steps may have to travel compared to nonhandicapped persons.

(2) *International accessibility symbol.* The international accessibility symbol shall be displayed at wheelchair accessible entrance(s) to buildings that meet the ANSI standards.

(3) *Fare vending and collection systems.* Transit fare vending and collection systems shall be designed so as not to prevent effective utilization of the transportation system by elderly and handicapped persons. Each station shall include a fare control area with at least one entrance with a clear opening at least 32 inches wide when open.

(4) *Boarding platforms.* All boarding platform edges bordering a drop-off or other dangerous condition shall be marked with a warning device consisting of a strip of floor material differing in color and texture from the remaining floor surface. The design of boarding platforms for level-entry vehicles shall be coordinated with the vehicle design in order to minimize the gap between platform and vehicle doorway and to permit safe passage by wheelchair users and other elderly and handicapped persons.

(c) The standards established in paragraphs (a) and (b) of this section do not apply to:

(1) The design, construction, or alteration of any portion of a fixed facility which need not, because of its intended use, be made accessible to, or usable by, the public or by physically handicapped persons;

(2) The alteration of an existing fixed facility to the extent that the alteration does not involve the installation of, or work on, existing stairs, doors, elevators, toilets, entrances, drinking fountains, floors, telephone locations, curbs, parking areas, or any other facilities susceptible of installation or improvements to accommodate the physically handicapped (the standards do not apply to the unaltered portions or items of an existing fixed facility);

(3) The alteration of an existing fixed facility, or of such portions thereof, to which application of the standards is not structurally possible; and

(4) The construction or alteration of a fixed facility for which a grantee has, prior to May 31, 1976, issued a formal invitation for bids to perform such construction or alteration.

(d) The final project application for any project that includes the design, construction, or alteration of a fixed

facility subject to paragraph (a) of this section shall contain one of the following: (1) An assurance that the standards of paragraph (a) of this section will be adhered to in the design, construction, or alteration of such facility; (2) a request for a finding that the project is within one of the exceptions set out in paragraph (c) of this section (the specific exception being identified), with appropriate supporting material; or (3) a request pursuant to § 609.25 for waiver of the standards of paragraphs (a) and (b) of this section, with appropriate supporting material.

§ 609.15 Buses.

(a) Effective with procurement solicitations containing UMTA-approved specifications issued after (date reserved), UMTA grantees may procure new, standard, full-size urban transit buses only if the procurement solicitation utilizes UMTA's bid package entitled "Transbus Procurement Requirements," which requires a stationary floor height of not more than 22 inches, an effective floor height including a kneeling feature of not more than 18 inches, and a front door ramp or front door lift for boarding and exiting.

(b) Paragraphs (c) through (i) of this section apply to new, standard, full-size urban transit buses (of current or advanced design) for which an UMTA grantee issues a procurement solicitation containing UMTA-approved vehicle specifications on or before September 30, 1979. In addition to the vehicles described in the above sentence, paragraphs (d) through (i) of this section also apply to all other new transit buses exceeding 22 feet in length for which an UMTA grantee issues a procurement solicitation containing UMTA-approved vehicle specifications. After September 30, 1979, the design requirements in paragraphs (d) through (i) of this section will apply only to these other transit buses. For any new transit buses exceeding 22 feet in length except new, standard, full-size urban transit buses, any requirements concerning wheelchair accessibility will be handled on a case-by-case basis as part of the project approval process.

(c) *Wheelchair accessibility option.* Procurement solicitations issued on or before September 30, 1979 containing UMTA-approved vehicle specifications for new, standard, full-size urban transit buses (of current or advanced design) shall provide for a bus design which permits the addition of a wheelchair accessibility option and shall require an assurance from each bidder that it offers a wheelchair accessibility option for its buses. The term "wheelchair accessibility option" means a level change mechanism (e.g., lift or ramp), sufficient clearances to permit a wheelchair user to reach a securement location, and at least one wheelchair securement device.

(d) *Priority seating signs.* In order to maximize the safety of elderly and handicapped persons, each vehicle shall contain clearly legible sign(s) which indicate that seats in the front of the vehicle are priority seats for elderly and handicapped persons, and which encourage other passengers to make such seats available to elderly and handicapped persons who wish to use them.

(e) *Interior handrails and stanchions.* (1) Handrails and stanchions shall be provided in the entranceway to the vehicle in a configuration which allows elderly and handicapped persons to grasp such assists from outside the vehicle while starting to board, and to continue using such assists throughout the boarding and fare collection processes. The configuration of the passenger assist system shall include a rail across the front of the interior of the vehicle which shall serve both as an assist and as a barrier to reduce the possibility of passengers sustaining injuries on the fare collection device or windshield in the event of sudden deceleration. The rail shall be located to allow passengers to lean against it for security while paying fares.

(2) Overhead handrail(s) shall be provided which shall be continuous except for a gap at the rear doorway.

(3) Handrails and stanchions shall be sufficient to permit safe on-board circulation, seating and standing assistance, and unboarding by elderly and handicapped persons.

(f) *Floor and step surfaces.* (1) All floors and steps shall have slip-resistant surfaces.

(2) All step edges shall have a band of bright contrasting color(s) running the full width of the step.

(g) *Lighting.* (1) Any stepwell immediately adjacent to the driver shall have, when the door is open, at least 2 foot-candles of illumination measured on the step tread.

(2) Other stepwells shall have, at all times, at least 2 foot-candles of illumination measured on the step tread.

(3) The vehicle doorways shall have outside light(s) which provide at least 1 foot-candle of illumination on the street surface for a distance of 3 feet from all points on the bottom step tread edge. Such light(s) shall be located below window level and shielded to protect the eyes of entering and exiting passengers.

(h) *Fare collection.* The farebox shall be located as far forward as practicable and shall not obstruct traffic in the vestibule.

(i) *Destination and route signs.* Each vehicle shall have illuminated signs on the front and boarding side of the vehicle.

[41 FR 18239, Apr. 30, 1976 as amended at 42 FR 48340, Sept. 23, 1977; 43 FR 41989, Sept. 19, 1978; 44 FR 47344, Aug. 13, 1979]

§ 609.17 Rapid rail vehicles.

(a) The requirements of this section apply to all new rapid rail vehicles for which an UMTA grantee issues, on or after May 31, 1976, a formal procurement solicitation containing vehicle specifications approved by UMTA.

(b) *Doorways.* (1) Passenger doorways on vehicle sides shall have clear openings at least 32 inches wide when open.

(2) The international accessibility symbol shall be displayed on the exterior of each vehicle operating on a wheelchair accessible rapid rail system.

(3) Audible warning signals shall be provided to alert elderly and handicapped persons of closing doors.

(4) Where the vehicle will operate in a wheelchair accessible station, the design of vehicles shall be coordinated with the boarding platform design in order to minimize the gap between the

vehicle doorway and the platform and to permit safe passage by wheelchair users and other elderly and handicapped persons.

(c) *Priority seating signs.* In order to maximize the safety of elderly and handicapped persons, each vehicle shall contain clearly legible sign(s) which indicate that certain seats are priority seats for elderly and handicapped persons, and which encourage other passengers to make such seats available to elderly and handicapped persons who wish to use them.

(d) *Interior handrails and stanchions.* (1) Handrails and stanchions shall be sufficient to permit safe boarding, onboard circulation, seating and standing assistance, and unboarding by elderly and handicapped persons.

(2) Handrails, stanchions, and seats shall be located so as to allow a wheelchair user to enter the vehicle and position the wheelchair in a location which does not obstruct the movement of other passengers.

(e) *Floor surfaces.* All floors shall have slip-resistant surfaces.

§ 609.19 Light rail vehicles.

(a) The requirements of this section apply to all new light rail vehicles for which an UMTA grantee issues, on or after May 31, 1976, a formal procurement solicitation containing vehicle specifications approved by UMTA.

(b) *Doorways.* (1) Passenger doorways on vehicle sides shall have clear openings at least 32 inches wide when open.

(2) The international accessibility symbol shall be displayed on the exterior of each vehicle operating on a wheelchair accessible light rail system.

(3) Audible warning signals shall be provided to alert elderly and handicapped persons of closing doors.

(4) The design of level-entry vehicles shall be coordinated with the boarding platform design in order to minimize the gap between the vehicle doorway and the platform and to permit safe passage by wheelchair users and other elderly and handicapped persons.

(c) *Priority seating signs.* In order to maximize the safety of elderly and handicapped persons, each vehicle

shall contain clearly legible sign(s) which indicate that certain seats are priority seats for elderly and handicapped persons, and which encourage other passengers to make such seats available to elderly and handicapped persons who wish to use them.

(d) *Interior handrails and stanchions.* (1) On vehicles which require use of steps in the boarding process, handrails and stanchions shall be provided in the entranceway to the vehicle in a configuration which allows elderly and handicapped persons to grasp such assists from outside the vehicle while starting to board, and to continue using such assists throughout the boarding process.

(2) On level-entry vehicles, handrails, stanchions, and seats shall be located so as to allow a wheelchair user to enter the vehicle and position the wheelchair in a location which does not obstruct the movement of other passengers.

(3) On all vehicles, handrails and stanchions shall be sufficient to permit safe boarding, on-board circulation, seating and standing assistance, and unboarding by elderly and handicapped persons.

(e) *Floor and step surfaces.* (1) All floors and steps shall have slip-resistant surfaces.

(2) Any step edges shall have a band of bright contrasting color(s) running the full width of the step.

(f) *Lighting in step-entry vehicles.* (1) Any stepwell immediately adjacent to the driver shall have, when the door is open, at least 2 footcandles of illumination measured on the step tread.

(2) Other stepwells shall have, at all times, at least 2 footcandles of illumination measured on the step tread.

(3) The vehicle doorways shall have outside lights which provide at least 1 footcandle of illumination on the street surface for a distance of 3 feet from all points on the bottom step tread edge. Such lights shall be located below window level and shielded to protect the eyes of entering and exiting passengers.

§ 609.21 Other vehicles.

Requirements for vehicles not covered by §§ 609.15, 609.17, or § 609.19

will be determined by UMTA on a case-by-case basis as part of the project approval process.

§ 609.23 Reduced fare.

Applicants for financial assistance under section 5 of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1004), must, as a condition to receiving such assistance, give satisfactory assurances, in such manner and form as may be required by the Urban Mass Transportation Administrator and in accordance with such terms and conditions as the Urban Mass Transportation Administrator may prescribe, that the rates charged elderly and handicapped persons during non-peak hours for transportation utilizing or involving the facilities and equipment of the project financed with assistance under this section will not exceed one-half of the rates generally applicable to other persons at peak hours, whether the operation of such facilities and equipment is by the applicant or is by another entity under lease or otherwise.

§ 609.25 Waiver.

The requirements set forth in this part may be modified or waived on a case-by-case basis upon application to the Urban Mass Transportation Administrator if the Administrator determines that such modification or waiver is clearly necessary and is consistent with the intent of the laws cited under "Authority." However, a modification or waiver of § 609.13(a) for a building covered by Pub. L. 90-480 will also require the approval of the Administrator of General Services. Any request for modification or waiver should be presented for comment at the public hearing required prior to submission of a project application to UMTA. In the event that the waiver is not presented at the hearing, the Urban Mass Transportation Administrator may require a new public hearing if he finds that the requested waiver would have a substantial effect on the accessibility of the facility or equipment to elderly and handicapped persons.

§ 613.100

PART 613—PLANNING ASSISTANCE AND STANDARDS

Subpart A—Urban Transportation Planning

Sec.

613.100 Urban transportation planning.

Subpart B—Transportation Improvement Program

613.200 Transportation improvement program.

Subpart C—Coordination of Federal and Federally Assisted Programs and Projects

613.300 Coordination of Federal and federally assisted programs and projects.

Subpart A—Urban Transportation Planning

§ 613.100 Urban transportation planning.

The urban transportation planning regulations implementing 23 U.S.C. 134 and section 8 of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1607), which require comprehensive planning of transportation improvements which are set forth in 23 CFR Part 450, Subpart A, are incorporated into this subpart.

(23 U.S.C. 104(f)(3), 134 and 315; secs. 3, 5, 8, 9, and 9A of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602, 1604, 1607, 1607a and 1607a-1); secs. 174 and 176 of the Clean Air Act (42 U.S.C. 7504 and 7506); and 49 CFR 1.46(b) and 1.51)

[48 FR 30342, June 30, 1983]

Subpart B—Transportation Improvement Program

§ 613.200 Transportation improvement program.

The transportation improvement program regulations establishing guidelines for the development, content, and processing of a cooperatively developed transportation improvement program in urbanized areas which are set forth in 23 CFR Part 450, Subpart B are incorporated into this subpart.

(23 U.S.C. 105, 134(a), and 135(b); secs. 3, 5, and 8(c) of the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602, 1604, and 1607(c)); secs. 174, and 176 of the

49 CFR Ch. VI (10-1-85 Edition)

Clean Air Act (42 U.S.C. 7504, 7506); and 49 CFR 1.46(b) and 1.51)

[48 FR 30342, June 30, 1983]

Subpart C—Coordination of Federal and Federally Assisted Programs and Projects

§ 613.300 Coordination of Federal and federally assisted programs and projects.

The coordination of Federal and federally assisted programs and projects implementing OMB revised Circular No. A-95, which are set forth in 23 CFR Part 420, Subpart C, are incorporated into this subpart.

(Pub. L. 89-754, 80 Stat. 1262, 42 U.S.C. 3334; Pub. L. 90-577, 82 Stat. 1104, 42 U.S.C. 4233; Pub. L. 91-190, 83 Stat. 852, 42 U.S.C. 4332; Pub. L. 88-352, 78 Stat. 252, 42 U.S.C. 2000; OMB Circular A-95; 23 U.S.C. 104 (f)(3), 105, 134, 307, 315, 324; 49 CFR 1.46 (b) and 1.51(f); 49 CFR 21.7(a); The Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1602, 1603, 1604, 1605, 1607(a), and 1612)

[41 FR 33443, Aug. 9, 1976]

PART 622—ENVIRONMENTAL IMPACT AND RELATED PROCEDURES

Subpart A—Environmental Procedures

Sec.

622.101 Cross-reference to procedures.

Subpart B—[Reserved]

Subpart C—Requirements for Energy Assessments

622.301 Buildings.

Subpart A—Environmental Procedures

§ 622.101 Cross-reference to procedures.

The procedures for complying with the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*) and related statutes, regulations, and orders are set forth in Part 771 of Title 23 of the CFR.

(42 U.S.C. 4321 *et seq.*; 49 U.S.C. 1601 *et seq.*; 49 CFR 1.51)

[45 FR 71977, Oct. 30, 1980]

Subpart B—[Reserved]**Subpart C—Requirements for Energy Assessments****§ 622.301 Buildings.**

(a) UMTA assistance for the construction, reconstruction, or modification of buildings for which applications are submitted to UMTA after October 1, 1980, will be approved only after the completion of an energy assessment. An energy assessment shall consist of an analysis of the total energy requirements of a building, within the scope of the proposed construction activity and at a level of detail appropriate to that scope, which considers:

- (1) Overall design of the facility or modification, and alternative designs;
- (2) Materials and techniques used in construction or rehabilitation;
- (3) Special or innovative conservation features that may be used;
- (4) Fuel requirements for heating, cooling, and operations essential to the function of the structure, projected over the life of the facility and including projected costs of this fuel; and
- (5) Kind of energy to be used, including:

- (i) Consideration of opportunities for using fuels other than petroleum and natural gas, and
- (ii) Consideration of using alternative, renewable energy sources.

(b) Compliance with the requirements of paragraph (a) of this section shall be documented as part of the Environmental Assessment or Environmental Impact Statement for projects which are subject to a requirement for one. Projects for which there is no environmental assessment or EIS shall document compliance by submission of appropriate material with the application for UMTA assistance for actual construction.

(c) The cost of undertaking and documenting an energy assessment may be eligible for UMTA participation if the requirements of Federal Management Circular 74-4 (A-87) are met.

(d) This requirement shall not apply to projects for which the final project application or environmental assess-

ment have been submitted to UMTA prior to October 1, 1980.

(Sec. 403(b), Pub. L. 95-620; E.O. 12185)
[45 FR 58038, Aug. 29, 1980]

PART 623—AIR QUALITY CONFORMITY AND PRIORITY PROCEDURES FOR USE IN FEDERAL-AID HIGHWAY AND FEDERALLY FUNDED TRANSIT PROGRAMS**§ 623.101 Cross-reference to procedures.**

The procedures for complying with the Clean Air Act Amendments of 1977 (Pub. L. 95-95, 91 Stat. 685) and related statutes, regulations, and orders are set forth in 23 CFR Part 770.

(42 U.S.C. 4332, 7401 and 7506; 49 U.S.C. 1601 et seq.; 49 CFR 1.51)

[46 FR 8429, Jan. 26, 1981]

PART 630—UNIFORM SYSTEM OF ACCOUNTS AND RECORDS AND REPORTING SYSTEM**Subpart A—General****Sec.**

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APPENDIX A—REPORTING REQUIREMENTS FOR FIXED GUIDEWAY AND COMMUTER RAIL SYSTEMS

APPENDIX B—REPORTING REQUIREMENTS FOR BUS SYSTEMS

APPENDIX C—UMTA REGIONAL OFFICES

AUTHORITY: Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1601 et seq.) and 49 CFR 1.51.

SOURCE: 42 FR 3772, Jan. 19, 1977, unless otherwise noted.

Subpart A—General

§ 630.1 Purpose.

The purpose of this subpart is to define the terms and procedures guiding the application of the Uniform System of Accounts and Records and the Reporting System required to be prescribed by section 15 of the Urban Mass Transportation Act. These systems are described in the report entitled "Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System," January, 1977.

§ 630.2 Scope.

These regulations apply to all applicants and beneficiaries of Federal financial assistance under section 5 of the UMT Act (49 U.S.C. 1604 et seq.). Applicants and beneficiaries under section 5 must adhere to the Uniform System of Accounts and Records and participate in the Reporting System as provided hereunder. Failure to do so will result in loss of eligibility for assistance under section 5.

§ 630.3 Definitions.

(a) Except as otherwise provided, terms defined in the Urban Mass Transportation Act of 1964, as amended (49 U.S.C. 1601 et seq.), are used in this part as so defined.

(b) For purposes of this part:

"The UMT Act" means the Urban Mass Transportation Act of 1964 as amended (49 U.S.C. 1601 et seq.).

"Administrator" means the Urban Mass Transportation Administrator or his designee.

"Applicant" means Applicant for Assistance under section 5 of the UMT Act.

"Assistance" means Federal financial assistance for the acquisition, construction or operation of public mass transportation services.

"Central Processing System" means the procedures and computer software needed to receive section 15 reports, validate their data, maintain the data, and provide standard reports, special reports and computer data facsimiles to the system's users including governments at all levels, transit operators and the public.

"Central Processing Agency" means the organizational element in UMTA responsible for operation and maintenance of the Central Processing System.

"Commuter Rail System" means passenger transportation by railroad within, to or from an urbanized area usually typified by closer headways during week-day morning and afternoons and by the sale of commutation tickets.

"Beneficiary" means any organization operating and delivering urban transit services that receives benefits directly from assistance under section 5 of the UMT Act.

"Metropolitan Planning Organization" means that organization designated by the Governor as being responsible, together with the state for carrying out the provisions of 23 U.S.C. 134 (Federal-Aid Highway Planning Requirements) and capable of meeting the requirements of 49 U.S.C. 1603(a) (Urban Mass Transportation planning requirements). This organization is the forum for cooperative decision-making by principal elected officials of general purpose local government.

"Mass transportation system" or "transit system" means a system to transport people by bus, or rail, or other conveyance, either publicly or privately owned, and which provides to the public, general or special service (but not including school or charter or sightseeing service) on a regular and continuing, scheduled or unscheduled, basis. Transit systems are classified according to the mode of transit service operated. A multi-mode transit system

is one operating two or more of these modes, described hereafter.

(1) *Rail rapid transit.* High-speed, passenger rail cars operating singly or in trains of two or more cars on fixed rails in separate rights-of-way from which all other vehicular and foot traffic is excluded. The tracks may be located in underground tunnels, on elevated structures, in open cut or at surface level. There are very few, if any, crossings of streets and roads at track level, and rail traffic has the right-of-way at such intersections. The cars are driven electrically with the power being drawn from an overhead electric line or from an electrified third rail.

(2) *Streetcar.* Lightweight passenger rail cars operating singly (or in short, usually two-car, trains) on fixed rails in right-of-way that is not separated from other traffic for much of the way. Streetcars do not necessarily have the right-of-way at at-grade crossings with other traffic. Streetcars are driven electrically with the power being drawn from an overhead electric line via a trolley or a pantograph.

(3) *Trolleybus.* Rubber-tired passenger vehicles operating singly on city streets. These buses are driven electrically with the power being drawn from an overhead electric line via trolleys.

(4) *Motor bus.* Rubber-tired passenger vehicles operating singly on city streets. These buses are powered by diesel, gasoline or propane engines contained within the bus; they are, therefore, not restricted to operating on a fixed route.

(5) *Dial-a-ride.* Rubber-tired passenger vehicles operating on city streets, propelled by gas, gasoline or diesel engines, equipped to provide personal demand transit service, normally upon dispatch, and used exclusively for this service.

(6) *School bus.* Type I and Type II school vehicles as defined in Highway Safety Program Standard No. 17, used exclusively to transport school students, personnel and equipment.

(7) *Ferryboat.* A vessel for carrying passengers and/or vehicles over a body of water. The vessels are generally steam or diesel-powered conventional ferry vessels. They may also be hover-

craft, hydrofoil and other high-speed vessels.

(8) *Other.* Other modes of transit service such as cable cars, personal rapid transit systems of varying designs, monorails, incline railways, etc., not covered in the above categories.

§ 630.4 Overview of the Uniform System of Accounts and Records, and the Reporting System.

(a) *Distinction between required and voluntary systems.* The Uniform System of Accounts and Records and the Reporting System include provisions for both mandatory and voluntary collection and reporting of data. The definitions for the required data are consistent with and summarized from those for the more extensive voluntary data. As described in Subparts B and C of this regulation, operators may elect to collect and report revenue and expense data in greater detail than that required to meet the section 15 requirement. The Central section 15 Processing System will be configured to support the assimilation and analysis of the more detailed expense and revenue data as well as mandatory data. Thus, if state or local governments mandate the more detailed revenue and expense data, or if transit operators elect to provide this data to further expand the capability for comparative analysis, the Central Processing System will accommodate these additional needs.

(b) *Relationship of system of accounts and records to reporting system.* There is a distinction between a uniform system of accounts and records, and a system of reports generated to satisfy the requirements of various users of financial and operating information.

(1) The uniform system of accounts and records consists of:

(i) Various categories of accounts and records for classifying financial and operating data, (ii) Precise definitions as to what data elements are to be included in these categories, and (iii) Definition of practices for systematic collection and recording of such information.

(2) The reporting system consists of forms and procedures (i) For transmit-

tting information from operators to the central processing agency designated to collect data from all operators, (ii) For editing and storing information, and (iii) For the data center to report information to various user groups. User reports may consist of basic data summaries and analytical measures or performance indicators to assist the analysis of information.

(3) The level of detail of data element categories in the system of accounts and records should not be confused with the level of detail to be reported to the central processing agency and ultimately to users. The level of detail in the system of accounts and records maintained by the reporting agencies should be dictated largely by the management needs of the reporting agency, and by the requirement to provide an audit trail from the internal accounting system to the prescribed system, if the latter is not actually adopted in practice. The level of detail to be reported to the central processing agency will normally be less than that required for internal management purposes.

§ 630.5 Commuter rail reporting requirements.

Commuter railroads shall maintain their internal books of account in the manner specified by the Interstate Commerce Commission (ICC). The commuter rail reporting requirements under section 15 are those prescribed by the Rail Services Planning Office (RSPO) under 49 CFR Part 1127 as published in the *FEDERAL REGISTER* on August 3, 1976.

§ 630.6 Reference documents.

(a) The Uniform System of Accounts and Records and the Reporting System required by section 15 are contained in the report entitled "Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System," January, 1977. The report distinguishes between the mandatory collection and reporting of data required under section 15, and the voluntary collection and reporting which section 15 will accommodate. The report is presented in four volumes

VOLUME I—GENERAL DESCRIPTION presents an overview of the systems, and an identification of the analytical potential provided by comparative data generated by the systems.

VOLUME II—UNIFORM SYSTEM OF ACCOUNTS AND RECORDS contains the definitions for the uniform system of accounts and records.

VOLUME III—REPORTING SYSTEM FORMS AND INSTRUCTIONS—REQUIRED contains illustrative forms for each of the reports required to be submitted under section 15 and instructions for completing those forms.

VOLUME IV—REPORTING SYSTEM FORMS AND INSTRUCTIONS—VOLUNTARY contains illustrative forms and instructions for optional revenue and expense reporting. The voluntary reports in Volume IV are more detailed than their counterparts in Volume III. Operators may elect one or more of the optional reports in Volume IV in place of counterpart reports in Volume III.

(b) Volumes I, II, and III will be of use to all reporting transit systems. Volume IV will be useful to those operators who elect to comply with the more detailed revenue and expense options.

§ 630.7 Waiver.

The requirements set forth in this part may be modified or waived on a case-by-case basis upon application to the Urban Mass Transportation Administrator, if the Administrator determines that such modification or waiver is clearly necessary and is consistent with the intent of the law.

Subpart B—Uniform System of Accounts and Records

§ 630.10 Purpose.

The purpose of this subpart is to prescribe the Uniform System of Accounts and Records under section 15 of the Urban Mass Transportation Act.

§ 630.11 General instructions.

(a) The Uniform System of Accounts and Records hereby prescribed pursuant to section 15 for each transit system affected by this regulation, except for commuter rail systems, is that described in the publication "Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System," January, 1977, available from:

Section Fifteen, Office of Transit Management, UMD-10, Urban Mass Transportation Administration, 2100 2nd Street, SW., Washington, D.C. 20590

(1) In addition to the prescribed accounts, temporary or supplemental accounts and subdivisions of any accounts may be kept, provided the integrity of the prescribed accounts is not impaired. A transit property is not required to adopt the prescribed uniform system of accounts and records as its own internal system of accounts. Each entity can customize its internal books of account to meet its own internal management requirements, provided that it is able to translate its accounts to the prescribed uniform system of accounts and records. It is intended that the records shall be kept in a manner to permit ready analysis by prescribed accounts and to permit preparation of financial and operating data directly from such records at the end of the fiscal year. Any summary and/or translation to the prescribed Uniform System of Accounts and Records must be consistent with the following:

(i) The data have been developed using the accrual basis of accounting. Those transit systems that use cash-basis accounting, in whole or in part, in their books of account will have to make work sheet adjustments to record the data on the accrual basis.

(ii) The accounting treatment specified in the Accounting Practice Instructions in the publication "Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System," January, 1977, has been followed.

(iii) the transit system's accounting categories (chart of accounts) have been correctly related, via a clear audit trail, to the accounting categories prescribed in this system.

(b) Commuter rail systems shall maintain their internal books of account in the manner specified by the Interstate Commerce Commission.

(c) Transit systems held subject by the Interstate Commerce Commission

to the Interstate Commerce Commission's Uniform System of Accounts for Class I Common and Contract Motor Carriers of Passengers are not subject to the system of accounts and records described in this subpart. However, such transit systems are subject to the section 15 reporting requirements specified in Subpart C.

§ 630.12 Structure of the Uniform System of Accounts and Records.

(a) In order to aid affected persons, enterprises and the public in comprehending this Uniform System of Accounts and Records, the general structure of the system is described as follows:

(1) *Two-dimension classification of expenses.* In the section 15 system, operating expenses incurred by the transit system are classified within mode according to two dimensions:

(i) The type of expenditure (object classes).

(ii) The functions or activities performed.

(2) *Expense object classes.* The expense object classes are typical of most transit accounting systems, although some operators may not identify the specific categories or use the same names, their systems usually capture the same information and can be reclassified into the section 15 categories. The additional level of detail presented in "Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System" Volume II contains definitions that should help in this reclassification. Table B-1 presents the expense object classes and functions required under section 15. Table B-2 is a more detailed list which includes recommended expense object classes that have been developed to assist transit operators in implementing the section 15 requirements. The object class definitions are contained in the "Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System," January, 1977.

TABLE B-1—REQUIRED EXPENSE OBJECT CLASSES AND FUNCTIONS

Object classes	Functional categories			
	010 operations	040 maintenance	160 general administra- tions	Total all functions
501 Labor				
01 Operators' salaries and wages				
02 Other salaries and wages				
502 Fringe benefits				
503 Services				
504 Materials and supplies consumed				
01 Fuel and lubricants				
02 Tires and tubes				
99 Other materials and supplies				
505 Utilities				
506 Casualty and liability costs				
507 Taxes				
508 Purchased transportation service				
509 Miscellaneous expense				
510 Expense transfers				
511 Interest expense				
512 Leases and rentals				
513 Depreciation and amortization				
Total expense				

TABLE B-2

RECOMMENDED EXPENSE OBJECT CLASSES

501. Labor¹
01. Operators' Salaries and Wages.¹
 02. Other Salaries and Wages.¹
502. Fringe Benefits¹
01. FICA or Railroad Retirement.
 02. Pension Plans (including long-term disability insurance).
 03. Hospital, Medical and Surgical Plans.
 04. Dental Plans.
 05. Life Insurance Plans.
 06. Short-Term Disability Insurance Plans.
 07. Unemployment Insurance.
 08. Workmen's Compensation Insurance or Federal Employee Liability Act Contributions.
 09. Sick Leave.
 10. Holiday (including all premiums paid for working on holidays).
 11. Vacation.
 12. Other Paid Absence (bereavement pay, military pay, jury duty pay, etc.).
 13. Uniform and Work Clothing Allowances.
 14. Other Fringe Benefits.
 15. Distribution of Fringe Benefits.
503. Services¹
01. Management Service Fees.
 02. Advertising Fees.
 03. Professional and Technical Services.
 04. Temporary help.
 05. Contract Maintenance Services.
 06. Custodial Services.
 07. Security Services.
 99. Other Services.
504. Materials and Supplies Consumed¹
01. Fuel and Lubricants.¹
 02. Tires and Tubes.¹
 99. Other Materials and Supplies.¹
505. Utilities¹
01. Propulsion Power.
 02. Utilities Other Than Propulsion Power.
506. Casualty and Liability Costs¹
01. Premiums for Physical Damage Insurance.

TABLE B-2—Continued

RECOMMENDED EXPENSE OBJECT CLASSES

02. Recoveries of Physical Damage Losses.
 03. Premiums for Public Liability and Property Damage Insurance.
 04. Payouts for Uninsured Public Liability and Property Damage Settlements.
 05. Provision for Uninsured Public Liability and Property Damage Settlements.
 06. Payouts for Insured Public Liability and Property Damage Settlements.
 07. Recoveries of Public Liability and Property Damage Settlements.
 08. Premiums for Other Corporate Insurances.
 09. Other Corporate Losses.
 10. Recoveries of Other Corporate Losses.
507. Taxes¹
01. Federal Income Tax.
 02. State Income Tax.
 03. Property Tax.
 04. Vehicle Licensing and Registration Fees.
 05. Fuel and Lubricant Taxes.
 06. Electric Power Taxes.
 99. Other Taxes.
508. Purchased Transportation Service¹
509. Miscellaneous Expense¹
01. Dues and Subscriptions.
 02. Travel and Meetings.
 03. Bridge, Tunnel and Highway Tolls.
 04. Entertainment Expense.
 05. Charitable Donations.
 06. Fines and Penalties.
 07. Bad Debt Expense.
 08. Advertising/Promotion Media.
 99. Other Miscellaneous Expense.
510. Expense Transfers¹
01. Function Reclassifications.
 02. Expense Reclassifications.
 03. Capitalization of Nonoperating Costs.
511. Interest Expense¹
01. Interest on Long-Term Debt Obligations (net of interest capitalized).

TABLE B-2—Continued

RECOMMENDED EXPENSE OBJECT CLASSES

02. Interest on Short-Term Debt Obligations.
512. *Leases and Rentals*¹
01. Transit Way and Transit Way Structures and Equipment.
02. Passenger Stations.
03. Passenger Parking Facilities.
04. Passenger Revenue Vehicles.
05. Service Vehicles.
06. Operating Yards or Stations.
07. Engine Houses, Car Shops and Garages.
08. Power Generation and Distribution Facilities.
09. Revenue Vehicle Movement Control Facilities.
10. Data Processing Facilities.
11. Revenue Collection and Processing Facilities.
12. Other General Administration Facilities.
513. *Depreciation and Amortization*¹
01. Transit Way and Transit Way Structures and Equipment.
02. Passenger Stations.
03. Passenger Parking Facilities.
04. Passenger Revenue Vehicles.
05. Service Vehicles.
06. Operating Yards or Stations.
07. Engine House, Car Shops and Garages.
08. Power Generation and Distribution Facilities.
09. Revenue Vehicle Movement Control Facilities.
10. Data Processing Facilities.
11. Revenue Collection and Processing Facilities.
12. Other General Administration Facilities.
13. Amortization of Intangibles.

¹ Denotes required object classes

(3) *Functional categories.* Most current systems classify expenditures according to organizational categories. These organizational entities may or may not conform to the functional categories. Moreover, the organizational categories vary a great deal among systems. To obtain uniformity and enhance the usefulness of the data, a standard set of functional classifications has been defined. The functional classifications reflect the complexity, needs and capabilities of vari-

ous sizes of operations. Large systems need to develop specialized activities and are able to identify labor and other expenses directly with these activities. Small companies have less need to develop specialized activities. For example, in an operation with ten vehicles, one person may perform general management, operating and maintenance activities.

(i) For the above reasons, three levels of detail for functional categories were developed and are recommended:

(A) Level A—Applies to operations with more than 500 vehicles.

(B) Level B—Applies to operations with 101-500 vehicles.

(C) Level C—Applies to operations with 100 vehicles or less.

(ii) Table B-3 shows the three levels of functional classification and how they relate to one another. Function definitions are contained in the January, 1977 publication "Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System." Level A is the most detailed. Level B is an aggregation of Level A, and Level C is an aggregation of Level B. The breakdown in Table B-1 is Level C. Note that it will be possible to compare all systems at the C-Level regardless of reporting level chosen. The three functions defined for Level C are required under section 15 for all operators, i.e., 010 Operations, 040 Maintenance, and 160 General Administration. Transit systems are encouraged, however, to adopt the functional classification developed for their size of operation.

TABLE B-3.—AGGREGATION OF FUNCTIONS FOR EXPENSE CLASSIFICATION

Level A—Detail	Level B (aggregation of A)	Level C (aggregation of A)
011 Transportation administration.....		
012 Revenue vehicle movement control.....	→ 010 Administration of transportation operations.	
021 Schedule of transportation operations.....	→ 020 Scheduling of operations.....	010 ¹ operations.
031 Revenue vehicle operation.....	→ 030 Revenue vehicle operation.....	
041 Maintenance administration vehicles.....		
042 Maintenance administration facilities.....	→ 040 Maintenance administration.....	
051 Servicing revenue vehicles.....	→ 050 Servicing revenue vehicles.....	
061 Inspection and maintenance of revenue vehicles.....	→ 060 Inspection and maintenance of revenue vehicles.	
062 Accident repairs of revenue vehicles.....	→ 062 Accident repairs of revenue vehicles.	
071 Vandalism repairs of revenue vehicles.....	→ 070 Vandalism repairs of revenue vehicles.	

TABLE B-3.—AGGREGATION OF FUNCTIONS FOR EXPENSE CLASSIFICATION—Continued

Level A—Detail	Level B (aggregation of A)	Level C (aggregation of A)
081 Servicing and fuel for service vehicles	→ 080 Servicing and fuel for service vehicles	
091 Inspection and maintenance of service vehicles	→ 090 Inspection and maintenance of service vehicles	
101 Maintenance of vehicle movement control systems	→ 100 Maintenance of vehicle movement control systems	
111 Maintenance of fare collection and counting equipment	→ 101 Maintenance of fare collection and counting equipment	
121 Maintenance of roadway and track		040 ¹ maintenance
122 Maintenance of structures, tunnels, bridges, and subways		
123 Maintenance of passenger stations		
124 Maintenance of operating station buildings, grounds, and equipment		
125 Maintenance of garage and shop buildings, grounds, and equipment	→ 120 Maintenance of other buildings, grounds, and equipment	
126 Maintenance of communication system		
127 Maintenance of general administration buildings, grounds, and equipment		
128 Accident repairs of buildings, grounds, and equipment		
131 Vandalism repairs of buildings, grounds, and equipment	→ 130 Vandalism repairs of buildings, grounds, and equipment	
141 Operation and maintenance of electric power facilities	→ 140 Operation and maintenance of electric power facilities	
145 Preliminary transit system development	→ 145 Preliminary transit system development	
151 Ticketing and fare collection	→ 150 Ticketing and fare collection	
161 System security		
165 Injuries and damages		
166 Safety		
167 Personnel administration		
168 General legal services		
169 General insurance		
170 Data processing		
171 Finance and accounting	→ 160 General administration	160 ¹ general administration
172 Purchasing and stores		
173 General engineering		
174 Real estate management		
175 Office management and services		
176 General management		
182 Customer services		
183 Promotion		
184 Market research	→ 170 Marketing	
177 Planning		
181 General function	→ 180 General function	

¹ Denotes required functional categories.

(4) *Revenue classes.* Table B-4 presents the revenue object classes required under section 15. Table B-5 is a more detailed list which includes recommended revenue object classes that have been developed to assist transit operators in implementing the section 15 requirement. The object class definitions appear in the January 1977 publication "Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System."

TABLE B-4

REQUIRED REVENUE OBJECT CLASSES

401	Passenger Fare for Transit Service
402	Special Transit Fares
403	School Bus Service Revenues
404	Freight Tariffs
405	Charter Service Revenues
406	Auxiliary Transportation Revenues
407	Nontransportation Revenues
408	Taxes Levied Directly by Transit System
409	Local Cash Grants and Reimbursements
410	Local Special Fare Assistance
411	State Cash Grants and Reimbursements
412	State Special Fare Assistance
413	Federal Cash Grants and Reimbursements
430	Contributed Services
440	Subsidy From Other Sectors of Operations

TABLE B-5

RECOMMENDED REVENUE OBJECT CLASSES

401. *Passenger Fares for Transit Service*¹
 01. Full Adult Fares.
 02. Senior Citizen Fares.
 03. Student Fares.
 04. Child Fares.
 05. Handicapped Rider Fares.
 06. Parking Lot Revenue.
 99. Other Primary Ride Fares.
402. *Special Transit Fares*¹
 01. Contract Fares for Postmen.
 02. Contract Fares for Policemen.
 03. Special Route Guarantees.
 04. Other Special Contract Transit Fares—State and Local Government.
 05. Other Special Contract Transit Fares—Other Sources.
 07. Non-Contract Special Service Fares.
403. *School Bus Service Revenues*¹
404. *Freight Tariffs*¹
405. *Charter Service Revenues*¹
406. *Auxiliary Transportation Revenues*¹
 01. Station Concessions.
 02. Vehicle Concessions.
 03. Advertising Services.
 04. Automotive Vehicle Farnage.
 99. Other Auxiliary Transportation Revenues.
407. *Nontransportation Revenues*¹
 01. Sales of Maintenance Services.
 02. Rental of Revenue Vehicles.
 03. Rental of Buildings and Other Property.
 04. Investment Income.
 05. Parking Lot Revenue.
 99. Other Nontransportation Revenues.
408. *Taxes Levied Directly by Transit System*¹
 01. Property Tax Revenue.
 02. Sales Tax Revenue.
 03. Income Tax Revenue.
 04. Payroll Tax Revenue.
 05. Utility Tax Revenue.
 99. Other Tax Revenue.
409. *Local Cash Grants and Reimbursements*¹
 01. General Operating Assistance.
 02. Special Demonstration Project Assistance—Local Projects.
 03. Special Demonstration Project Assistance—Local Share for State Projects.
 04. Special Demonstration Project Assistance—Local Share for UMTA Projects.
 05. Reimbursement of Taxes Paid.
 06. Reimbursement of Interest Paid.
 07. Reimbursement of Transit System Maintenance Costs.
 08. Reimbursement of Security Costs.
 99. Other Financial Assistance.
410. *Local Special Fare Assistance*¹
 01. Handicapped Citizen Fare Assistance.
 02. Senior Citizen Fare Assistance.
 03. Student Fare Assistance.
 99. Other Special Fare Assistance.
411. *State Cash Grants and Reimbursements*¹
 01. General Operating Assistance.
 03. Special Demonstration Project Assistance—State Projects.
 04. Special Demonstration Project Assistance—State Share for UMTA Projects.
 05. Reimbursement of Taxes Paid.
 06. Reimbursement of Interest Paid.
 07. Reimbursement of Transit System Maintenance Costs.
 09. Reimbursement of Security Costs.
 99. Other Financial Assistance.

TABLE B-5—Continued

RECOMMENDED REVENUE OBJECT CLASSES

412. *State Special Fare Assistance*¹
 01. Handicapped Citizen Fare Assistance.
 02. Senior Citizen Fare Assistance.
 03. Student Fare Assistance.
 99. Other Special Fare Assistance.
413. *Federal Cash Grants and Reimbursement*¹
 01. General Operating Assistance.
 04. Special Demonstration Project Assistance.
 99. Other Financial Assistance.
430. *Contributed Services*¹
 01. State and Local Government.
 02. Contra Account for Expense.
440. *Subsidy From Other Sectors of Operations*¹
 01. Subsidy from Utility Rates.
 02. Subsidy from Bridge and Tunnel Tolls.

¹ Denotes required object classes.

(5) *Balance sheet object classes.*—Table B-6 presents the classifications for assets, liabilities and capital accounts required under section 15. Table B-7 is a more detailed list which includes recommended balance sheet accounts that have been developed to assist transit operators in implementing the section 15 requirement. The definitions appear in the January, 1977 publication "Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System."

TABLE B-6

REQUIRED BALANCE SHEET OBJECT CLASSES

- | Assets | |
|-------------|---|
| 101. | Cash and Cash Items. |
| 102. | Receivables. |
| 103. | Materials and Supplies Inventory. |
| 104. | Other Current Assets. |
| 105. | Work in Process. |
| 111. | Tangible Transit Operating Property |
| 03. | Accumulated Depreciation. |
| 112. | Tangible Property Other Than for Transit Operations |
| 02. | Accumulated Depreciation. |
| 121. | Intangible Assets. |
| 06. | Accumulated Amortization. |
| 131. | Investments. |
| 141. | Special Funds. |
| 151. | Other Assets. |
| Liabilities | |
| 201. | Trade Payables. |
| 202. | Accrued Payroll Liabilities. |
| 203. | Accrued Tax Liabilities. |
| 204. | Short-Term Debt. |
| 205. | Other Current Liabilities. |
| 211. | Advances Payable. |
| 221. | Long-Term Debt. |
| 231. | Estimated Liabilities. |
| 241. | Deferred Credits. |
| Capital | |
| 301. | Public (Governmental) Entity Ownership. |
| 302. | Private Corporation Ownership. |
| 303. | Private Noncorporate Ownership. |

TABLE B-6—Continued

REQUIRED BALANCE SHEET OBJECT CLASSES

- 304. Grants, Donations and Other Paid-In Capital.
- 305. Accumulated Earnings (Losses).

TABLE B-7

RECOMMENDED BALANCE SHEET OBJECT CLASSES

Assets

- 101. *Cash and Cash Items*¹
 - 01. Cash.
 - 02. Working (Imprest) funds.
 - 03. Special Deposits, Interest.
 - 04. Special Deposits, Dividends.
 - 05. Special Deposits, Other.
 - 06. Temporary Cash Investments.
- 102. *Receivables*¹
 - 01. Accounts Receivable.
 - 02. Notes Receivable.
 - 03. Interest and Dividends Receivable.
 - 04. Receivables from Associated Companies.
 - 05. Receivable Subscriptions to Capital Stock.
 - 06. receivables for Capital Grants.
 - 07. Receivables for Operating Assistance.
 - 08. Other Receivables.
 - 09. Reserve for Uncollectible Accounts.
- 103. *Materials and Supplies Inventory*¹
- 104. *Other Current Assets*¹
- 105. *Work in Process*¹
 - 01. Unbilled Work for Others.
 - 02. Capital Projects.
- 111. *Tangible Transit Operating Property*¹
 - 01. Property Cost.
 - 02. Leased-Out Property Cost.
 - 03. Accumulated Depreciation.¹
- 112. *Tangible Property Other Than for Transit Operations*¹
 - 01. Property Cost.
 - 02. Accumulated Depreciation.¹
- 121. *Tangible Assets*¹
 - 01. Organization Costs.
 - 02. Franchises.
 - 03. Patents.
 - 04. Goodwill.
 - 05. Other Intangible Assets.
 - 06. Accumulated Amortization.¹
- 131. *Investments*¹
 - 01. Investments and Advances, Associated Companies.
 - 02. Other Investments and Advances.
 - 03. Reserve for Revaluation of Investments.
- 141. *Special Funds*¹
 - 01. Sinking Funds.
 - 02. Capital Asset Funds.
 - 03. Insurance Reserve Funds.
 - 04. Pension Funds.
 - 05. Other Special Funds.
- 151. *Other Assets*¹
 - 01. Prepayments.
 - 02. Miscellaneous Other Assets.

Liabilities

- 201. *Trade Payables*¹
 - 01. Accounts Payables.
 - 02. Payables to Associated Companies.
- 202. *Accrued Payroll Liabilities*¹
- 203. *Accrued Tax Liabilities*¹
- 204. *Short-Term Debt*¹
 - 01. Notes Payable.
 - 02. Matured Equipment and Long-Term Obligations.
 - 03. Unmatured Equipment and Long-Term Obligations, Current Portion.
 - 04. Matured Interest Payable.
 - 05. Accrued Interest Payable.

TABLE B-7—Continued

RECOMMENDED BALANCE SHEET OBJECT CLASSES

- 06. *Current Pension Liabilities.*
- 205. *Other Current Liabilities*¹
 - 01. Unredeemed Fares.
 - 02. C.O.D.'s Unremitted.
 - 03. Dividends Declared and Payable.
 - 04. Short-Term Construction Liabilities.
 - 05. Miscellaneous Other Current Liabilities.
- 211. *Advances Payable*¹
 - 01. Advances Payable to Associated Companies.
 - 02. Other Advances Payable.
- 221. *Long-Term Debt*¹
 - 01. Equipment Obligations.
 - 02. Bonds.
 - 03. Receivers' and Trustees' Securities.
 - 04. Long-Term Construction Liabilities.
 - 05. Other Long-Term Obligations.
 - 06. Unamortized Debt Discount and Expense.
 - 07. Unamortized Premium on Debt.
 - 08. Recaptured and Nominally Issued Long-Term Obligations.
- 231. *Estimated Liabilities*¹
 - 01. Long-Term Pension Liabilities.
 - 02. Uninsured Public Liability and Property Damage Losses.
 - 03. Other Estimated Liabilities.
- 241. *Deferred Credits*¹
 - Capital
 - 301. *Public (Governmental) Entity Ownership*¹
 - 302. *Private Corporation Ownership*¹
 - 01. Preferred Capital Stock.
 - 02. Common Capital Stock.
 - 03. Premiums and Assessments on Capital Stock.
 - 04. Discount on Capital Stock.
 - 05. Commission and Expense on Capital Stock.
 - 06. Capital Stock Subscribed.
 - 07. Recaptured Securities.
 - 08. Nominally Issued Securities.
 - 303. *Private Noncorporate Ownership*¹
 - 01. Sole Proprietorship Capital.
 - 02. Partnership Capital.
 - 304. *Grants, Donations and Other Paid-In Capital*¹
 - 01. Federal Government Capital Grants.
 - 02. State Government Capital Grants.
 - 03. Local Government Capital Grants.
 - 04. Nongovernmental Donations and Other Paid-In Capital.
 - 305. *Accumulated Earnings (Losses)*¹
 - 01. Accumulated Earnings (Losses).
 - 02. Dividend Appropriations.
 - 03. Restricted Accumulated Earnings.

¹ Denotes required object classes.

(6) *Accumulation period.* The period of accumulation of data is the operator's fiscal year. This avoids allocation inaccuracies that would occur if the operator were to be forced into a common year, i.e., calendar year, or the disruption which would be caused if all were to be required to adopt a fiscal year ending on the same date.

(7) *Operating data elements.* The January, 1977 publication "Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System" also defines

and recommends procedures for the collection of certain operating data elements. The required operating data elements are listed in Table B-8.

(1) It should be noted here that for urbanized areas with populations over 750,000, this information will be supplemented periodically by a user survey conducted by the Metropolitan Planning Organizations (MPO's). A measure of walking accessibility to transit systems and certain demographic data will also be provided by the MPO's for all urbanized areas with 50,000 or more population.

TABLE B-8

REQUIRED OPERATING DATA ELEMENTS

<i>Time Periods</i>
<i>Facilities and Equipment</i>
Miles of roadway or track.
Railway classifications.
Bus roadway classifications.
Revenue vehicle inventory classifications.
Number of passenger stations.
<i>Employees</i>
Transit operating personnel classifications.
Employee count classifications.
<i>Maintenance Performance and Fuel Consumption</i>
Roadcalls for mechanical failure.
Roadcalls for other reasons.
Labor hours for inspection and maintenance of revenue vehicles.
Fuel power consumption.
Number of light maintenance facilities.
<i>Safety</i>
Collision accident classifications.
Noncollision accident classifications.
Injury and damage classifications.
<i>Service Supplied and Vehicle Utilization</i>
Average and total vehicles operated.
Miles of revenue service.
Miles of total service.
Miles of charter and school bus service.
Hours of revenue service.
Hours of total service.
Hours of charter and school bus service.
<i>Passenger Utilization</i>
Unlinked passenger trips.
Passenger miles.
Average time per unlinked trip.

EDITORIAL NOTE: At 48 FR 32926, May 23, 1983, the provisions of § 630.12(a)(7)(i), Table B-8 were waived and suspended until further notice.

Subpart C—Reporting System

§ 630.20 Purpose.

(a) The purpose of this subpart is to prescribe the Reporting System and present general instructions for reporting the financial and nonfinancial operating data required.

(b) *Distinction between reporting system inputs and outputs*—(1) *Reporting system inputs*. The reporting system inputs are the data elements which are actually reported by the system operators to the central processing agency.

(2) *Reporting system outputs*. The reporting system outputs are the reports which are generated by the data center for the various user groups. These reports may contain the values of the individual data elements reported by the operators, and/or aggregations of the data, and/or ratios or other analyses of interest to various users.

§ 630.21 Reporting requirements.

(a) The reporting requirements cover the following major segments which are based on the Uniform System of Accounts and Records.

(1) Balance sheet.

(2) Revenue report.

(3) Expense report.

(4) Nonfinancial operating data reports.

(5) Miscellaneous auxiliary questionnaires and subsidiary schedules.

(b) The reporting requirements under Section 15 consist of reporting information contained in each of the required accounts specified in Subpart B and of reporting more detailed information on sources of funding, payroll and labor related expenses.

(c) Transit operators may submit a more detailed revenue report which would include the information contained in the recommended revenue object classes listed in Subpart B, Table B-5.

(d) Transit operators may submit a more detailed expense report which would include the information contained in the recommended expense object classes and functions listed in Subpart B, Tables B-2 and B-3. Transit operators choosing this option are encouraged to use the guidelines specified in Subpart B in determining the level of functional category detail to use in the collection and reporting of expense data, i.e., Level A, B or C.

(e) Transit operators with 25 revenue vehicles or less are not required to submit the following subsidiary forms:

§ 630.22

Operators' Wages Subsidiary Schedule
Fringe Benefits Subsidiary Schedule
Pension Plan Questionnaire

§ 630.22 Reporting period.

(a) At the end of its fiscal year, each transit operator subject to this Reporting System shall file a report that contains the reporting forms required by section 15. The transit system shall file with such report, a letter or report signed by an independent public accountant or other responsible independent entity such as a state audit agency attesting to the conformity, in all material respects, of the financial data reporting forms in such report with the prescribed Uniform System of Accounts and Records and Reporting System.

(b) A suggested form of a letter or report follows:

In connection with our regular examination of the financial statements of _____ for the year ended _____, on which we have reported separately under date of _____, we have also reviewed the reporting forms listed below and included in the _____ report for the year ended _____, required under Section 15 of the Urban Mass Transportation Act, for conformity in all material respects with the requirements of the Urban Mass Transportation Administration as set forth in its applicable Uniform System of Accounts and Records and Reporting System. Our review for this purpose included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We did not make a detailed examination such as would be required to determine that each transaction has been recorded in accordance with the Uniform System of Accounts and Records.

LIST OF REPORTING FORMS BEING REPORTED UPON

Based on our review, in our opinion, the accompanying reporting forms identified above (except as noted below) conform in all material respects with the accounting requirements of the Urban Mass Transportation Administration as set forth in its applicable Uniform System of Accounts and Records and Reporting System.

(c) The letter or report shall state, additionally, which, if any, of the reporting forms set forth above do not

¹Parentetical phrase inserted only when exceptions are to be reported.

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conform to the Urban Mass Transportation Administration requirements, and shall describe the discrepancies that exist.

(d) If the system is not audited by an independent public accountant, such certification will be required from a governmental audit agency, such as a state audit agency or a municipal audit agency. However, the certification must be made by an agency that is in fact independent. The Urban Mass Transportation Administration will determine the fact of independence by considering all of the relevant circumstances.

(e) Each transit system reporting its results will file a report covering its own fiscal year. This annual report will include all applicable forms in the Reporting System. All reports are due 120 days after the close of the fiscal year.

(f) Table C-1 indicates the key dates for accumulating and reporting information, based on a transit system's fiscal year.

TABLE C-1

If fiscal years ends	Internal systems to support sec. 15, reporting system should be in place as of:	1st report due to system administrator 120 d after fiscal year-end
July 31.....	Aug. 1, 1977	Nov. 28, 1978
Aug. 31.....	Sept. 1, 1977	Dec. 28, 1978
Sept. 30.....	Oct. 1, 1977	Jan. 28, 1979
Oct. 31.....	Nov. 1, 1977	Feb. 28, 1979
Nov. 30.....	Dec. 1, 1977	Mar. 30, 1979
Dec. 31.....	Jan. 1, 1978	Apr. 30, 1979
Jan. 31.....	Feb. 1, 1978	May 31, 1979
Feb. 28.....	Mar. 1, 1978	June 28, 1979
Mar. 31.....	Apr. 1, 1978	July 28, 1979
Apr. 30.....	May 1, 1978	Aug. 28, 1979
May 31.....	June 1, 1978	Sept. 28, 1979
June 30.....	July 1, 1978	Oct. 28, 1979

(g) Financial data must be reported to the nearest dollar. All information reported on the forms must be typewritten or printed legibly.

(h) Recognizing that many transit systems might experience difficulty responding to the complete Reporting System in the first year, the initial reports will be a subset of the full Reporting System. Specifically, for financial data, the first year requirements

and the full section 15 requirements are identical except that:

(1) Transit operators are not required to complete the Operators' Wages Subsidiary Schedule in the first year; and

(2) Transit operators who participate in pay-as-you-go pension plans are not required to report in the first year what the cost of a fully-funded pension plan would have been.

(i) The accounting basis to be used in developing the data for the reports is the accrual basis. Using the accrual basis, revenues will be recorded when earned, regardless of whether or not receipt of the revenue takes place in the same reporting period. Similarly, expenditures will be recorded as soon as they result in liabilities for benefits received, regardless of whether or not payment of the expenditure is made in the same reporting period.

(j) Those transit systems that use cash-basis accounting, in whole or in part, in their books of account will have to make work sheet adjustments to develop report data on the accrual basis.

§ 630.23 Availability of reporting forms.

The required forms and instructions are available from:

Section 15, Office of Transit Management,
UMD-10, Urban Mass Transportation Administration, Room 6412, 2100 Second Street, SW., Washington, D.C. 20590.

Illustrative forms for each of these required reports are included in the "Uniform System of Accounts and Records and Reporting System," January 1977, Volume III—Reporting System Forms and Instructions—Required. Volume IV—Reporting System Forms and Instructions—Voluntary contains illustrative forms and instructions for the optional revenue report and expense reports. Table C-2 contains a list of the reporting forms required under Section 15. An asterisk indicates that the reporting form is not required from operators who operate twenty-five or fewer revenue vehicles.

TABLE C-2

REQUIRED REPORTING FORMS

Financial Data

Balance Sheet Summary Schedule
Capital Subsidiary Schedule
Revenue Summary Schedule
Revenue Subsidiary Schedule
Single Mode Expenses and Functions Schedule or
Multi-Mode Expenses and Functions Schedule
Operators' Wages Subsidiary Schedule
Fringe Benefits Subsidiary Schedule
Pension Plan Questionnaire

Operating Data

Weekday Time Period Schedule
Transit Way Descriptions Schedule
Revenue Vehicle Inventory Schedule
Energy Consumption Schedule
Transit Service Personnel Schedule
Transit System Employee Count Schedule
Accidents Schedule
Transit Service Supplied Schedule
Transit Service Consumed Schedule

Subpart D—Apportionment Factors

AUTHORITY: Secs. 304, 319, Pub. L. 95-599, 92 Stat. 2689 (49 U.S.C. 1604, 1611; 49 CFR 1.51).

SOURCE: 43 FR 58928, Dec. 18, 1978, unless otherwise noted.

§ 630.30 Purpose.

The purpose of this subpart is to establish special data reporting requirements under section 15 of the Urban Mass Transportation Act (49 U.S.C. 1611) for designated recipients who receive Federal assistance under section 5 of the Act (49 U.S.C. 1604). These data are necessary to calculate the apportionments for urbanized areas because of changes to the section 5 program made by the Surface Transportation Assistance Act of 1978 (Pub. L. 95-599).

§ 630.31 Scope.

(a) Section 630.32 establishes the reporting requirements for designated recipients and/or metropolitan planning organizations as identified in Appendix A to this part for urbanized areas that contain fixed guideway and commuter rail systems.

(b) Section 630.33 establishes a one-time reporting requirement for designated recipients and/or metropolitan planning organizations as identified in Appendix B to this part for urbanized areas that contain bus systems.

(c) If an urbanized area contains both a fixed guideway system and a bus system, then the designated recipient and/or metropolitan planning organizations must comply with the reporting requirements of both §§ 630.32 and 630.33.

[43 FR 58928, Dec. 18, 1978, as amended at 44 FR 4483, Jan. 22, 1979]

§ 630.32 Reporting requirements for fixed guideway and commuter rail systems.

The required reporting entity in each urbanized area served by fixed guideway and/or commuter rail service, operated by or under contract for a public transportation agency, must submit data in accordance with the definitions, timetables, and procedures set forth in Appendix A to this part.

§ 630.33 Reporting requirements for bus systems.

The required reporting entity in each urbanized area served by bus service, operated by or under contract for a public transportation agency, must submit data in accordance with the definitions, timetable, and procedures set forth in Appendix B to this part.

§ 630.34 Failure to report data.

(a) Failure to report fixed guideway and commuter rail data in the manner required by § 630.32 will require UMTA to estimate data for that urbanized area so that a national apportionment can be calculated. Although UMTA will estimate an apportionment of these funds for areas that have not submitted data, the funds will not be available to that area until the area has submitted the required data. If an area submits these data after the deadline, and use of the submitted data would have resulted in an apportionment which is greater than UMTA's calculation, the amount available to that area shall be limited to amount initially apportioned by UMTA. If the use of data submitted after the deadline would have resulted in an apportionment which is less than UMTA's calculation, only the amount resulting from the use of the submitted data will be made available to that area. Excess funds resulting from such a restriction will be added

to the total amount for the next year's apportionment to all areas in this category.

(b) Failure to report bus data in the manner required by § 630.33 will make the designated recipient ineligible to receive section 5 grants after March 1, 1979.

§ 630.35 Waivers.

The Administrator has the authority to waive data reporting requirements established by this subpart when such a waiver would be in the public interest.

All of the information collection requests in this part have been approved by the Office of Management and Budget under control number 2132-0008. (47 FR 13825, Apr. 1, 1982)

[43 FR 58928, Dec. 18, 1978, as amended at 47 FR 13825, Apr. 1, 1982]

APPENDIX A—REPORTING REQUIREMENTS FOR FIXED GUIDEWAY AND COMMUTER RAIL SYSTEMS

I. Responsibility for data submission.

Data required under this Appendix for fixed guideway and commuter rail systems shall be submitted by:

(A) The single section 5 designated recipient where there is only one such recipient for that urbanized area; or

(B) In all other cases, the Metropolitan Planning Organization (MPO). UMTA will accept only the data submitted by the MPO for these areas. In areas where there is more than one MPO, it will be the responsibility of the various MPOs jointly to designate a single MPO with responsibility for submitting the data.

II. Deadline for data submission.

Data for Federal fiscal year 1979 apportionments must be submitted within 60 days from the date of this FEDERAL REGISTER. The data should be sent to the appropriate Regional Office. A list of UMTA Regional Offices is provided in Appendix C.

For apportionments of Section 5 funds for fiscal year 1980 and future years, the required data shall be submitted to the appropriate UMTA Regional Office by May 1 preceding the beginning of the next fiscal year.

III. Data required.

A. *Standard Data Collection Period.* Period law requires that apportionments be based upon data for the previous fiscal year. Because the fiscal years of the various operators differ, it is necessary to define a standard data collection period. The standard data collection period is accordingly defined

as the operator's most recent fiscal year ending on or before the January 1 prior to the beginning of the Federal fiscal year of the apportionment. The following table explains this more fully:

For apportionments in fiscal year—	Commuter rail and fixed guideway data must be submitted to UMTA regional office by May 1, of—	For the standard data collection period ending on or before January 1 of—
1980	1979	1979
1981	1980	1980
1982	1981	1981

If there is more than one operator within an urbanized area, and these operators have different fiscal calendars, the data from each shall correspond to its own fiscal calendar, collected in accordance with the above schedule.

B. Required Information. Data should be presented in a format similar to that shown as Attachment #1. All data submitted by the responsible agency identified in paragraph 1 of this Appendix must be accompanied by a signature of an authorized certifying official stating: "I hereby certify that the data submitted are correct." If the data submitted are not accompanied by this certification, the data will not be accepted. The data should be aggregated for all operators serving the urbanized area. In cases where there is more than one State within an urbanized area, the data must be disaggregated into each State part.

1. Fixed Guideway Route Miles. The data required are the route miles of fixed guideway existing within the confines of the urbanized area at the end of the standard data collection period, and owned and maintained by or under a contract for a public transportation agency.

A fixed guideway route mile is a length of one statute mile of a single or contiguous group of rail transit tracks, guideway lanes, or tracks, or roadway lanes, with each of the following characteristics:

a. It is permanently and physically separated from other transportation facilities and is at all times dedicated exclusively to use by transit and/or other high occupancy vehicles and emergency vehicles.

b. It has operating upon it transit vehicles which are available to the general public and are carrying passengers; and/or it is available and used for the operation of private and public high occupancy vehicles.

Where separate such tracks or lanes converge and become contiguous or coincident, the converged portion is considered to be a single "route" for the purpose of determining route mileage. The number of tracks or

lanes that may be contiguous in any given portion is not a consideration in the calculation of the fixed guideway route mileage. Also, the term "fixed guideway route mile" is not intended to apply to separately numbered or labelled transit operating routes, such as bus or rapid transit train routes. Where more than one public transit mode shares the same right-of-way, each gets credit for the fixed guideway route mileage separately. Examples of this situation are where heavy and light rail lanes share a tunnel, and where light rail and bus services share an exclusive guideway. However, high occupancy automotive vehicle operations, such as car pools and van pools, do not count as a public transit mode in this regard.

Excluded from the computation of fixed guideway route mileage are commuter rail tracks, tracks and lanes in maintenance and storage yards, lanes separated from conventional roadway lanes by painted markings and insubstantial barriers such as traffic cones, and test tracks mileage not in revenue service. Only the fixed guideway route mileage within the confines of the urbanized area is eligible for inclusion. When running in mixed traffic, trolley bus routes and streetcar/light rail routes are not eligible for inclusion.

2. Commuter Rail Route Miles. The data required are the route miles of commuter rail service existing within or outside of but still serving the urbanized area, operated and maintained by or under contract for a public transportation agency, on the last day of standard data collection period.

A commuter rail route mile is a length of one statute mile of a single or contiguous group of tracks over which commuter rail service is operated. Where separate such tracks converge and become coincident or contiguous, the converged portion is considered to be a single "route" for the purpose of determining route mileage. The number of commuter rail tracks that may be contiguous in any given portion is not a consideration in the calculation of commuter rail route mileage. Also, the term "commuter rail route mile" is not intended to apply to separately numbered or labelled commuter rail routes. In cases where the commuter rail tracks are contiguous or coincident with guideway of another transit mode, each mode gets credit separately in its appropriate category for the route mileage involved.

Only those route miles over which commuter rail trains are operating and carrying passengers or are available to the general public for carrying passengers may be included in the calculation of commuter rail route mileage. Excluded from the calculation are route miles to, from, and within storage and maintenance areas.

In cases where the same commuter rail service traverses more than one urbanized area, the commuter rail route miles and train miles attributed to this service will be allocated among the urbanized areas so served according to the share of financial support provided for the service by each area during the applicable standard data collection period. In cases where a regional or state agency provides the financial support for the service for a group of urbanized areas, such that amounts are not provided by or attributable to the individual urbanized areas in the group, the commuter rail route miles and train miles allocated to this group of urbanized areas are to be divided equally among the urbanized areas in the group for the purpose of these reporting requirements.

For the purposes of this calculation, commuter rail service is that provided by the operation of a commuter rail transit train. A commuter rail transit train is one or more linked railroad passenger cars moving together along a railroad track and operated on a regular basis by, or under contract for, a transit operator for the purpose of transporting passengers within urbanized areas, or between urbanized areas and outlying areas. Commuter rail service is typically characterized as urban passenger train service for local short-distance travel between a central city and adjacent suburbs, using both locomotive-hauled and self-propelled railroad passenger cars. It does not include heavy rail rapid transit or light rail/street-car transit service.

Rail passenger service of a predominantly intercity nature is excluded, except where a portion of it is operated under contract to a public transit agency for commuter purposes. In such cases, only the portion of the service provided under the contract is eligible for inclusion in the commuter rail route mileage figure.

3. *Commuter Rail Train Miles.* The data required are the total commuter rail train miles operated within the urbanized area, and outside of but still serving the urbanized area, by or under contract to a public transit agency, during the standard data collection period.

A commuter rail train mile is a distance of one statute mile travelled by a commuter rail transit train while it is carrying passengers or is available to the general public to carry passengers. Excluded from the commuter rail train mileage figure is any dead-head mileage, such as mileage to and from storage and maintenance facilities.

The description of commuter rail transit trains, the allocation of mileage between urbanized areas for commuter rail service operating between them, and the exclusion/inclusion of intercity service, is as described in subparagraph 2 "Commuter Rail Route Miles," above.

IV. *Audit Requirement.* The agency submitting the data to UMTA must have an independent auditor review the commuter rail and fixed guideway data submitted to verify its accuracy and the method of accumulating the data. This audit report must be submitted to the appropriate UMTA Regional Office within two months of the specified date of submission of the data by the same agency which submitted the data.

The audit must be conducted by a certified accounting firm. The cost of this audit is an eligible section 5 operating assistance expense.

The audit report may be in any format but must be a formal report containing the specific data requested in this Appendix as well as an evaluation of the method of data accumulation. The information used to support the data submitted must be available to UMTA for review for 3 years after the data is supplied. UMTA may conduct its own audits, in addition to the independent audit, at any time to verify the data and the supporting information.

After the publication of the apportionments based on submitted data, but before receipt of the audit report, one-half of the additional amounts apportioned to each area will be available. If the urbanized area's audit confirms the data submitted the remaining half of the additional funds will be made available to that area. If the audit report provides data which would have caused an apportionment which is greater than the amount actually apportioned, the amount made available shall be limited to that apportioned. If the audit report provides data which would have caused an apportionment which is less than the amount actually apportioned only the amount resulting from the data verified by the audit shall be made available. Excess funds resulting from such a restriction will be added to the total amount for the next year's apportionment to all areas in this category.

V. *Additional Information.* It is anticipated that the final fiscal year 1979 apportionment will be published in the *FEDERAL REGISTER* three months after the date of this regulation. Apportionments for future years will be published in the *FEDERAL REGISTER* approximately one month after UMTA appropriations for that fiscal year have been enacted.

The definitions of the data requested will remain the same for future fiscal years unless amended by a new *FEDERAL REGISTER* regulation. If a change does occur, it will be published in the *FEDERAL REGISTER*. All questions are to be submitted to the appropriate UMTA Regional Office.

ATTACHMENT 1—SAMPLE FORMAT FOR SUBMISSION OF DATA FOR APPORTIONMENT OF FISCAL YEAR 1979 SECTION 5 OPERATIONS ASSISTANCE BASED ON THE FEDERAL PUBLIC TRANSPORTATION ACT OF 1978

Urbanized Area: _____

Factor	Number	¹ Part: _____ (State)	¹ Part: _____ (State)
Fixed Guideway Route Miles			
Commuter Rail Route Miles			
Commuter Rail Train Miles			

¹NOTE: These columns are to be completed for those urbanized areas which are considered part of more than one State. The blank should be filled in with the name of the State.

I hereby certify that the data submitted are correct.

a. Typed name and title of certifying representative _____

b. Signature _____

c. Date _____

[43 FR 58928, Dec. 18, 1978, as amended at 44 FR 26052, May 3, 1979]

APPENDIX B—REPORTING REQUIREMENTS FOR BUS SYSTEMS

I. *Responsibility for data submission.* Data required under this Appendix for bus systems shall be submitted by:

(A) The single Section 5 designated recipient where there is only one such recipient for that urbanized area; or

(B) In all other cases, the Metropolitan Planning Organization (MPO). UMTA will accept only the data accepted by the MPO for these areas. In areas where there is more than one MPO, it will be the responsibility of the various MPO's to designate a single MPO with responsibility for submitting the data.

II. *Deadline for data submission.* Data must be collected for each operator of bus transit service for a data collection period corresponding to the operator's most recent fiscal year ending on or before January 1, 1979. The data must be sent to the appropriate UMTA Regional Office by March 1, 1979. A list of UMTA Regional Offices is provided in Appendix C. If the available records do not permit identification of the required data for that time period, the data may instead be reported for any one-year period, as close to that time period as possible for which it can be made available. If this is the case, the time period of the data collection must be indicated.

III. *Data required.* The new legislation mandates that UMTA carry out a study of alternative methods of distributing funds apportioned for the purchase of buses and related equipment and the construction of bus related facilities. In order to perform this study, data for a one year period on all bus operations is required from each urbanized area.

Data should be presented in a format similar to that shown as Attachment #1. All data submitted by the responsible agency identified in paragraph I of this Appendix must be accompanied by a signature of an authorized certifying official stating: "I hereby certify that the data submitted are correct." If the data submitted are not accompanied by this certification, the data will not be accepted. The data should be identified separately for each operator serving the urbanized area. In cases where there is more than one State within an urbanized area, the data must be disaggregated into each State part. If any of the data called for here have been previously submitted as part of a Section 15 report, or any other required UMTA report, this previous report may be cited and these particular data need not be repeated here.

If an accurate and complete collection of data is not possible, then estimates of these incomplete data, developed by justifiable approximations and extrapolations of existing data, may be substituted. If this is done, a description of the estimation procedure must accompany the data.

A. *Required Data—1. Bus Fleet Age Distribution.* The data shall represent the situation on the last day of the data collection period. The following shall be provided for each bus, including trolleybuses, operated by or under contract to a public transit agency in the urbanized area, and over twenty two feet in length:

- Year of manufacture
- Year acquisition by the operator
- Number of seats
- Type (e.g., trolleybus, diesel, gasoline, propane)
- Length of bus
- Total mileage operated by bus since its manufacture

2. *Bus Revenue Vehicle Miles.* The required data are the total transit bus revenue vehicle miles operated within the urbanized area, and outside of but still serving the urbanized area, by or under contract to a public transit agency, during the data collection period.

A transit bus revenue vehicle mile is a distance of one statute mile travelled by a transit bus while it is carrying passengers, or is available to the general public to carry passengers. Excluded from this is any deadhead mileage, such as mileage to and from storage and maintenance facilities. Also excluded is mileage operated during charter service. However, mileage operated during commuter subscription service and school tripper service is eligible for inclusion.

In cases where the same bus transit service traverses more than one urbanized area, the total bus revenue vehicle miles for this service will be allocated among the urbanized areas so served according to the share of the financial subsidy provided for this service by each area. In cases where a regional or state agency provides the financial subsidy for this service for a group of urbanized areas, such that amounts are not provided by or attributable to the individual urbanized areas in the group, the bus revenue vehicle miles allocated to this group are to be divided equally among the urbanized areas in the group for the purpose of these reporting requirements.

Vehicle revenue mileages for all buses over twenty-two feet in length must be included in the data submitted. Data need not be disaggregated by individual bus or by category or type of bus, however. Only a single total value for the urbanized area, or for each state part of a multi-state urbanized area, is required.

3. *Bus Revenue Seat Miles.* The data required are the total transit bus revenue seat miles operated within the urbanized area, and outside of but still serving the urbanized area, by or under contract to a public transit agency, during the data collection period. This figure is calculated by determining for each transit bus operating in the fleet the product of the revenue miles it has travelled, as described in section 2, "Bus Revenue Vehicle Miles," above, and the summing those products for all such buses.

In cases where a particular transit service traverses two urbanized areas, the bus revenue seat mileage attributable to each is calculated in the same manner as described above in subparagraph 2 "Bus Revenue Vehicle Miles". Vehicle revenue seat mileages for all buses over twenty-two feet in length, including trolleybuses, must be included in the data submitted. Data need not be disaggregated by individual bus or by category or type of bus, however. Only a single total value for the urbanized area, or for each

state part of a multi-state urbanized area, is required.

4. *Bus Route Miles.* The datum required is the total length of the route structure, in statute miles, for bus transit revenue service within the urbanized area, and outside of but still serving the urbanized area, operated by or under contract to a public transit agency. The datum may be reported in one of two optional ways:

a. The route mileage figure may be reported as of the end of the data collection period; or

b. In cases where the route structure has undergone significant changes throughout the data collection period, an average route mileage value may be determined by calculating the product of the route mileage and the amount of time (days, weeks, or months) for which it existed, for each of the different route structures in effect during the course of the data collection period, summing these products, and then dividing this sum by the total amount of time (days, weeks, or months) in the data collection period.

A transit bus revenue route mile is a distance of one statute mile along a route on which transit buses regularly travel while carrying passengers or while available to the general public to carry passengers. Excluded from this is any deadhead route mileage, such as mileage to and from maintenance and storage facilities. Also excluded is mileage operated during charter service. However, commuter subscription service, if operated on defined routes, is eligible for inclusion.

For these purposes, the length of a route is the round-trip distance traversed by a bus in travelling completely over the route and returning to the starting point to begin another circuit of the route. If a route is only defined in one direction, then this one-directional distance is the route length.

In cases where two or more separately numbered or labelled bus routes join and progress together for some distance along a street or highway, these routes are considered separate over this joined distance and their lengths are measured separately. Any routes separately distinguished by number, letter, name, or color, for reasons of differing paths, stop patterns, or schedules, are considered as separate routes for these purposes. In cases where a particular transit route traverses two urbanized areas, the bus revenue route mileage attributable to each urbanized area is determined as described for bus revenue vehicle miles, section 2 above.

Bus revenue route mileage for all routes operated with buses, including trolleybuses, over twenty-two feet in length must be included in the data submitted. Data need not be disaggregated by route or type of bus, however. Only a single total figure for the

urbanized area, or for each state part of a multi-state urbanized area, is required.

IV. *Audit requirement.* No audit will be required of this data. UMTA will rely on the certification submitted by the designated recipient.

V. *Additional information.* Questions should be directed to the appropriate UMTA Regional Office.

ATTACHMENT 1—SAMPLE FORMAT FOR SUBMITTAL OF BUS OPERATIONS DATA REQUIRED TO CONDUCT STUDY OF BUS FUNDING APPORTIONMENT UNDER FEDERAL PUBLIC TRANSPORTATION ACT OF 1978

Name of urbanized area _____ page _____
State part of urbanized area (if applicable) _____
Operator _____

A. Bus Fleet Age Distribution:

Year of manufacture	Year acquired by operator	Number of seats	Type (trolleybus, diesel, etc.)	Length (feet)	Total mileage

B. Bus Revenue Vehicle Miles.....
C. Bus Revenue Seat Miles.....
D. Bus Revenue Route Miles.....

I hereby certify that the data submitted are corrected.

(a) Typed name and title of certifying representative
(b) Signature
(c) Date.....

[43 FR 58928, Dec. 18, 1978; 44 FR 4493, Jan. 22, 1979, as amended at 44 FR 26052, May 3, 1979]

APPENDIX C—UMTA REGIONAL OFFICES

I—Peter N. Stowell, Regional Director, Transportation Systems Center, Kendall Square, 55 Broadway, Cambridge, MA 02142, Tel: (617) 494-2055.

II—Hiram Walker, Regional Director, Suite 1811, 26 Federal Plaza, New York, NY 10007, Tel: (212) 264-8162.

III—Franz K. Gimmier, Regional Director, Suite 1010, 434 Walnut Street, Philadelphia, PA 19106, Tel: (215) 597-0098.

IV—Doug Campion, Regional Director, Suite 400, 1720 Peachtree Road, N.W., Atlanta, GA 30309, Tel: (404) 881-3948.

V—Theodore Weigle, Regional Director, Suite 1740, 300 S. Wacker Drive, Chicago, IL 60606, Tel: (312) 353-2789.

VI—Glen Ford, Regional Director, Suite 9A32, 819 Taylor Street, Fort Worth, TX 76102, Tel: (817) 334-3787.

VII—Lee Waddleton, Regional Director, Suite 303, 6301 Rock Hill Road, Kansas City, MO 64131, Tel: (816) 926-5053.

VIII—Lou Mraz, Regional Director, Suite 1822, Prudential Plaza, 1050 17th Street, Denver, CO 80265, Tel: (303) 837-3242.

IX—Dee Jacobs, Regional Director, Suite 820, Two Embarcadero Center, San Francisco, CA 94111, Tel: (415) 556-2884.

X—P. William Fort, Regional Director, Suite 3106, Federal Building, 915 Second Avenue, Seattle, WA 98174, Tel: (206) 442-4210.

PART 635—SECTION 5—FORMULA GRANT URBAN MASS TRANSIT PROGRAM—REQUIREMENTS

Subpart A—Public Hearing Requirements for Fare Changes and Substantial Service Changes

Sec.

- 635.1 Purpose.
- 635.2 Definitions.
- 635.3 Assurances.
- 635.7 When hearing is required.
- 635.9 Hearing requirements.
- 635.11 Sanctions.

APPENDIX A—FORMAT FOR ASSURANCE OF COMPLIANCE WITH SECTION 5(1)(3)

AUTHORITY: 49 U.S.C. 1604(i)(3) (sec. 5(i)(3) of the Urban Mass Transportation Act of 1964, as amended); 49 CFR 1.51.

SOURCE: 45 FR 26300, Apr. 17, 1980, unless otherwise noted.

Subpart A—Public Hearing Requirements for Fare Changes and Substantial Service Changes

§ 635.1 Purpose.

(a) Section 5(i)(3) of the Urban Mass Transportation Act of 1964, as amended (hereinafter referred to as the Act), requires that recipients of section 5 funds must make "assurances satisfactory to the Secretary that any public mass transportation system receiving financial assistance under such project will not change any fare and will not substantially change any service except: (1) After having held public hearings or having afforded an adequate opportunity for such hearings, after adequate public notice, (2) after having given proper consideration to views and comments expressed in such hearings, and (3) after having given consideration to the effect on energy conservation, and the economic, environmental, and social impact of the change in such fare or such service."

(b) This subpart sets out the regulations implementing the statutory requirement that a public hearing be held for changes in fares and substantial changes in service.

§ 635.2 Definitions.

As used in this subpart:

(a) Recipient means a Governor or entity designated as a recipient under section 5(b) of the Urban Mass Transportation Act of 1964, as amended. The recipient undertakes the legal responsibility for carrying out section 5 projects directly by lease, by contract, or otherwise.

(b) A transit route is a route over which a transit vehicle travels which is specifically labelled or numbered for the purpose of picking up or discharging passengers at regularly scheduled stops and intervals.

(c) A transit route mile is a distance of one statute mile along a route regularly travelled by transit vehicles while available for the general public to carry passengers. The length of a

route is the round trip distance traversed in traveling completely over the route and returning to the starting point to begin another circuit of the route. If a route is only defined in one direction, then this one-directional distance is the route length.

(d) A transit revenue vehicle mile is a distance of one statute mile travelled while a transit vehicle is available to the general public to carry passengers.

(e) Ridership means the number of unlinked revenue passenger trips carried. An unlinked passenger trip does not include any transfers. (A single trip by a transit user involving three vehicles and using two transfers is three unlinked passenger trips.)

(f) A service change is any addition or deletion resulting in the physical realignment of a transit route, or a change in the type or frequency of service provided in a specific, regularly scheduled transit route.

(g) Experimental service change is an addition of service to an existing transit route, or the establishment of a new transit route.

§ 635.3 Assurances.

(a) Each recipient of section 5 funds must execute and submit the assurance in Appendix A of this subpart. This assurance must be executed and submitted even though the recipient has previously submitted an assurance prior to May 17, 1980. The new assurance will replace any previously submitted assurance.

(b) The assurance may be incorporated in the one-time submission of standard assurances required under UMTA Circular C 9050.1 (section 5 operating grants) or UMTA Circular C 9100.1 (section 5 capital grants).

(c) Each recipient must abide by the terms and conditions stated in the assurance.

§ 635.7 When hearing is required.

(a) Except as provided elsewhere in this section, a hearing required by section 5(i)(3) of the Act must be held when:

- (1) There is a change in any fare;
- (2) There is any change in service of:
 - (i) 25 percent or more of the number of transit route miles of a route; or

(ii) 25 percent or more of the number of transit revenue vehicle miles of a route computed on a daily basis for the day of the week for which the change is made; or

(3) A new transit route is established.

(b) Reduced or free promotional fares which are instituted on a daily basis or periodically within a period of 180 days are exempt from the public hearing requirement.

(c) If a number of changes on a route in an operator's fiscal year add up to the percentages in paragraph (a) of this section, a hearing must be held prior to the last change.

(d) Headway adjustments of up to 5 minutes during peak hour service, and up to 15 minutes during non-peak hour service are exempt from the public hearing requirements.

(e) Standard seasonal variations are exempt from the public hearing requirement unless the number, timing or type of standard seasonal variations change.

(f) In an emergency situation, a service change may be implemented immediately without a public hearing being held. A public hearing on the emergency change must be held if the emergency change is to be in effect for more than 180 days and if the change meets the test of paragraph (a) (2) or (3). Examples of emergency service changes include but are not limited to those made because of a power failure for a rail or fixed guideway system, the collapse of a bridge over which bus routes pass, major road or rail construction, or inadequate supplies of fuel.

(g) Experimental service changes may be instituted for 180 days or less without a public hearing being held. The public hearing on an experimental service change is required if the experimental service change remains in effect for more than 180 days and if the change meets the tests of paragraph (a) (2) or (3). The hearing may be held prior to the institution of, or during the period of the experimental service change and will satisfy the requirement for a final public hearing if the hearing notice required by § 635.9 states that the experiment may become permanent at the end of the

experimental period. If a hearing is not held prior to or during the period of the experimental service change, the service that existed prior to the change must be reinstituted at the end of 180 days and a public hearing held in accordance with § 635.9 before the experimental service may be continued.

[46 FR 5477, Jan. 19, 1981]

§ 635.9 Hearing requirements.

(a) Prior to the institution of a fare change or to a service change that falls within the levels established in § 635.7, each recipient shall ensure that a notice of intent to hold the public hearing is published in a newspaper of general circulation in the urbanized area. The notice must also be published in newspapers oriented to specific groups or neighborhoods that may be affected.

(b) The notice must be published at less 30 days prior to the hearing. If local or state law requires the publication of a notice less than 30 days prior to a hearing, this requirement may be substituted for the 30 day requirement.

(c) The notice must contain: (1) A description of the contemplated service changes, or the fare change, as appropriate, and (2) the time and place of the hearing. If a hearing required by § 635.7(b) is held, the notice must describe the last change being contemplated, and the prior changes that were made.

(d) The public hearing requirement of section 5(i)(3) of the Act may be satisfied if a fare change or substantial change in service is addressed at a public hearing which is mandated by local or state law or is addressed at an open meeting of a city council or a transit authority board of directors at which public comment is accepted. The requirements of paragraphs (a) to (c) of this section must be followed for the hearing.

(e) If a fare change or substantial service change is mandated by the Interstate Commerce Commission, a public utility commission or equivalent, a state legislature or other public legislative body, the public hearing requirement of section 5(i)(3) of the Act

may be satisfied if the public is afforded the opportunity to appear before these bodies to present their views. The procedures and requirements for appearance before these bodies may be followed; however, the requirements of paragraph (a) to (c) of this section must be followed for such a hearing. The recipient must appear before these bodies to present its views concerning the proposed fare or service change.

§ 635.11 Sanctions.

(a) If a fare change or substantial service change is instituted without the requirements of section 5(i)(3) of the Act being met, the recipient has breached the grant agreement.

(b) When a recipient has breached an agreement because of noncompliance with section 5(i)(3) of the Act, the UMTA Administrator may impose one or more of the following sanctions:

(1) Require that the fare in place prior to the fare change be reinstituted or that the service change be cancelled:

(i) Until there is compliance with section 5(i)(3); or

(ii) For a period of time equal to the period between the fare change or service change and the date of compliance.

(2) Deny approval of the following fiscal year's section 5 application until there is compliance with section 5(i)(3).

(3) Suspend all payments under all active section 5 grants until there is compliance with section 5(i)(3). Under this sanction, the recipient will not suffer a loss of funds but will be unable to receive UMTA section 5 funds from the date of notification until the date of compliance. Funding after that time can cover the period during which payments were suspended.

(4) Declare all costs incurred during the period of noncompliance with section 5(i)(3) ineligible for section 5 assistance.

APPENDIX A—FORMAT FOR ASSURANCE OF COMPLIANCE WITH SECTION 5(i)(3)

CHANGES TO FARES AND SERVICE LEVELS

The recipient of section 5 funds hereby certifies that for any public mass transportation system receiving financial assistance under this project no fare changes or substantial changes in service as defined in 49 CFR 635.7 have been adopted since May 17, 1980, and assures that no fare changes or substantial changes in service as defined in 49 CFR 635.7 will be instituted, except:

(a) After a public hearing is held or an opportunity for such hearing is afforded, after adequate public notice;

(b) After proper consideration to views and comments expressed in such hearing is given; and

(c) After consideration to the effect on energy conservation, and the economic, environmental, and social impact of the change in such fare or such service is given.

Date: _____

Signed: _____

Title: _____

Organization: _____

PART 660—BUY AMERICA REQUIREMENTS

Subpart A—General

Sec.

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660.11 Applicability.

660.13 Definitions.

Subpart B—Implementation

660.20 Purpose.

660.21 Grantee responsibility.

660.22 Determination of origin.

Subpart C—Waivers

660.30 Purpose.

660.31 Application for waiver.

660.32 Types of waivers.

660.33 Relationship of waivers to bid process.

660.34 Effect of waiver.

APPENDIX A—COMPILATION OF WAIVERS ISSUED UNDER § 660.33(a)

Subpart D—Enforcement

660.40 Purpose.

660.41 Initiation.

660.42 Investigation.

660.43 Failure to comply with certification.

660.44 Sanctions.

660.45 Rights of third parties.

AUTHORITY: Sec. 401, Pub. L. 95-599 (92 Stat. 2689); 49 CFR 1.51, unless otherwise noted.

SOURCE: 43 FR 57145, Dec. 6, 1978, unless otherwise noted.

Subpart A—General

§ 660.10 Purpose.

The purpose of this subpart is to define the terms and procedures guiding the application of section 401, "Buy America", of the Surface Transportation Assistance Act of 1978, Pub. L. 95-599.

§ 660.11 Applicability.

(a) These regulations apply to all federally-assisted procurements under grants, loans, and cooperative agreements made pursuant to the Urban Mass Transportation Act of 1964, as amended, and sections 103(e)4 and 142 of title 23 U.S.C., for equipment and construction of facilities in which a third party contract exceeds \$500,000 and is financed by funds administered by UMTA that have been obligated after November 6, 1978.

(a-1) The regulations in this part do not apply to any federally-assisted procurement governed by the regulations in Part 661 of this subchapter.

(b) Only domestic end products may be procured with assistance provided by UMTA unless the Administrator waives the application of these requirements as set forth in Subpart C of this part.

(c) Because a domestic preference requirement, rather than an absolute "Buy America" requirement, has been established, materials of foreign origin may be considered for UMTA-assisted procurements.

(d) "Buy America" requirements do not apply to the procurement of services.

(e) A determination of the origin of end products to be procured must be made as set out in § 660.22 of this part.

(f) The location where components and end products are manufactured, mined, or produced is critical in determining their origin. The nationality of suppliers or the employees of these suppliers does not affect the origin of end products or components.

(g) UMTA will not participate in procurements in which a competitive advantage is given to State or local bidders or to bidders that agree to use State or local products.

(49 U.S.C. 1602, note (Sec. 401, Pub. L. 95-599; 92 Stat. 2689); 41 U.S.C. 10a, 10c, and 10d; 49 CFR 1.51).

[43 FR 57145, Dec. 6, 1978, as amended at 46 FR 5813, Jan. 19, 1981; 46 FR 41564, Sept. 15, 1983]

§ 660.13 Definitions.

As used in this part:

(a) "Act" means the Surface Transportation Assistance Act of 1978 (Pub. L. 95-599).

(b) "Administrator" means the Administrator of the Urban Mass Transportation Administration (UMTA).

(c) "Component" means any article, material, or supply, whether manufactured or unmanufactured, directly incorporated into an end product at the point of final assembly. An item used in the construction process as an aid to construction which remains at the construction site but serves no purpose in the completed end product is not a component.

(d) "Domestic end product" means an unmanufactured end product that has been mined or produced in the United States, or a manufactured end product determined to be domestic under § 660.22 of this part.

(e) "End product" means an article, material or supply, whether manufactured or unmanufactured, that is to be acquired by the grantee, with financial assistance derived from UMTA, and that is to be delivered to the grantee, as specified by the third party contract. In construction projects, the deliverable of the construction contract is the end product. Materials delivered to the jobsite and incorporated directly into the construction end-product are components.

(f) "Foreign end product" means an end product other than a domestic end product.

(g) "Grantee" means any entity that is a recipient of UMTA grants or loans under the Urban Mass Transportation Act of 1964, as amended, or under section 103(e)4 or section 142 of Title 23, United States Code.

(h) "Overall project contract" means each individual third party contract for a discrete portion of the overall project.

(i) "United States" means the several States, the Commonwealth of Puerto Rico, the District of Columbia, Guam, American Samoa, the Virgin Islands, and the Commonwealth of Northern Mariana Islands.

(49 U.S.C. 1602, note (sec. 401, Pub. L. 95-599; 92 Stat. 2689); 41 U.S.C. 10a, 10c, and 10d; 49 CFR 1.51)

[43 FR 57145, Dec. 6, 1978, as amended at 46 FR 5813, Jan. 19, 1981]

Subpart B—Implementation

§ 660.20 Purpose.

The purpose of this subpart is to prescribe the implementation of section 401 of the Act.

§ 660.21 Grantee responsibility.

(a) The grantee shall adhere to the Buy America clause set forth in its grant agreement with UMTA. The clause directly affects any third party contract utilizing funds obligated by UMTA after November 6, 1978. These requirements do not apply to any third party contract financed without UMTA funds or to any procurement or construction third party contract not exceeding \$500,000. The Buy America clause will be included in any grant or loan agreement entered into by UMTA that exceeds \$500,000.

(b) The grantee shall include in its bid specifications for procurement of equipment and construction of facilities within the scope of these regulations an appropriate notice of the Buy America provision. Such specifications shall require, as a condition of responsiveness, that the bidder or offeror submit with the bid a completed Buy America certificate, as set forth below:

BUY AMERICA CERTIFICATE

The bidder or offeror hereby certifies that each end product, except the end products listed below, is a domestic end product, as defined in 49 CFR 660.13(d); and that components of unknown origin have been considered to have been mined, produced, or manufactured outside the United States.

Excluded end products (show country of origin for each excluded end product):

(c) The grantee shall include in its bid specifications a statement that a waiver from the Buy America provision will be sought if the grounds for a waiver exist.

(49 U.S.C. 1602, note (sec. 401, Pub. L. 95-599; 92 Stat. 2689); 41 U.S.C. 10a, 10c, and 10d; 49 CFR 1.51).

[43 FR 57145, Dec. 6, 1978, as amended at 46 FR 5813, Jan. 19, 1981]

§ 660.22 Determination of origin.

(a) In order for a manufactured end product to be considered a domestic end product—(1) the cost of the domestic components must exceed 50 percent of the cost of all its components; and (2) the final assembly of the components to form the end product must take place in the United States.

(b) In determining the origin of components, each component must be treated as either entirely domestic or entirely foreign, based on the place where the component is mined, produced, or manufactured. Components of unknown origin must be treated as foreign. The origin of subcomponents of components is immaterial.

(c) Transportation costs to the place of incorporation into the end product and, in the case of foreign components, applicable duties, must be included in determining component cost under paragraph (a) of this section.

(d) The cost of a component is the price that a bidder or offeror must pay to a subcontractor or supplier for components. If the component is manufactured by the bidder or offeror, the cost of the component is the cost of labor and materials incorporated into the component and an allowance for profit and administrative and overhead costs attributable to that component under normal accounting principles.

(49 U.S.C. 1602, note (sec. 401, Pub. L. 95-599; 92 Stat. 2689); 41 U.S.C. 10a, 10c, and 10d; 49 CFR 1.51)

[43 FR 57145, Dec. 6, 1978, as amended at 46 FR 5813, Jan. 19, 1981]

Subpart C—Waivers**§ 660.30 Purpose.**

The purpose of this subpart is to describe the procedure for obtaining waivers to section 401 of the Act, the types of statutory waivers that exist, when in the bid process waivers can be issued, and the effect of the waiver on bidding procedures.

§ 660.31 Application for waiver.

(a) A bidder who seeks to establish grounds for any waiver described in § 660.32 must seek the waiver, in a timely manner, through the grantee.

(b) In the case of third party contracts, only a grantee may request a waiver. The request must be in writing, include facts and justification to support the granting of the waiver, and be submitted to the Administrator through the Regional Administrator.

(c) A waiver may be granted by the Administrator on his own initiative.

(d) Each request for a waiver and UMTA's action on the request are available for public inspection under the provisions of 49 CFR Part 601, Subpart C.

(49 U.S.C. 1602, note (sec. 401, Pub. L. 95-599; 92 Stat. 2689); 41 U.S.C. 10a, 10c, and 10d; 49 CFR 1.51)

[43 FR 57145, Dec. 6, 1978, as amended at 48 FR 5814, Jan. 19, 1981]

§ 660.32 Types of waivers.

(a) Section 401(b) of the Act provides for four instances wherein a waiver of the "Buy America" provision may be granted. A waiver of the "Buy America" provisions will be granted if:

(1) Their application would be inconsistent with the public interest;

(2) In the case of acquisition of rolling stock, their application would result in unreasonable cost (after granting appropriate price adjustments to domestic products based on that portion of project cost likely to be returned to the United States and to the States in the form of tax revenues);

(3) Supplies of the class or kind to be used in the manufacture of articles, materials, supplies are not mined, produced, or manufactured in the United States in sufficient and reasonably

available quantities and of a satisfactory quality; or

(4) Inclusion of domestic material will increase the cost of the overall project contract by more than 10 per centum.

(b) In determining whether the waiver described in paragraph (a)(1) will be granted, the Administrator considers all appropriate factors including, but not limited to, the cost, "red tape", and delay that would be imposed if the provision were not waived. The Administrator will issue a written determination setting forth the reasons for the granting or denial of the waiver.

(c) In determining whether the waiver described in paragraph (a)(2) will be granted, only taxes paid by the bidder will be considered.

(d) A domestic end product will be presumed unavailable if no responsive and responsible domestic bid has been received and a waiver will be granted by UMTA.

(e) In determining whether the waiver in paragraph (a)(4) will be granted in cases where the apparent low bid offers foreign end products, the lowest responsive and responsible bid offering foreign end products will be multiplied by 1.1. If this number is less than the lowest responsive and responsible bid offering all domestic end products (including end products considered domestic under the provision of § 660.34(b)) then the waiver will be granted.

(f) The statutory waiver provisions of section 401 of the Act are separate and distinct from each other. End products and components of end products may be granted different waivers.

(49 U.S.C. 1602, note (sec. 401, Pub. L. 95-599; 92 Stat. 2689); 41 U.S.C. 10a, 10c, and 10d; 49 CFR 1.51)

[43 FR 57145, Dec. 6, 1978, as amended at 48 FR 5814, Jan. 19, 1981]

§ 660.33 Relationship of waivers to bid process.

(a) Waivers may be issued that apply to broad classes of grants or particular types of end products, materials or supplies. A compilation of these waivers is listed in Appendix A.

(b) Waivers may be issued for a particular contract at any time based on information available to UMTA.

(49 U.S.C. 1602, note (sec. 401, Pub. L. 95-599; 92 Stat. 2689); 41 U.S.C. 10a, 10c, and 10d; 49 CFR 1.51)

[43 FR 57145, Dec. 6, 1978, as amended at 48 FR 5814, Jan. 19, 1981]

§ 660.34 Effect of waiver.

(a) If a waiver has been granted for an entire grant from UMTA or for an overall project contract planned to be advertised by a grantee, the bid process may proceed without any requirement that bidders make the certification required by § 660.21.

(b) If a waiver or waivers do not encompass all of the articles, materials, and supplies scheduled to be delivered or constructed under the contract, then the computation of the domestic component required under §§ 660.21 and 660.22 shall treat as domestic the articles, materials, and supplies for which waivers have been given.

APPENDIX A—COMPILATION OF WAIVERS ISSUED UNDER § 660.33(a)

(a) The provision has been waived for all operating assistance grants under sections 5, 17 and 18 of the UMT Act, and for any operation assistance portions of grants under section 6 of the UMT Act.

(b) All waivers published in 41 CFR 12-6.105 which established excepted articles, materials, and supplies for the Buy American Act of 1933, (41 U.S.C. 10a-d) as the waivers may be amended from time to time, are incorporated by reference.

(c) The provision is waived for foreign sourced spare parts whose total cost is 10% or less of the overall project contract cost.

(49 U.S.C. 1602, note (sec. 401, Pub. L. 95-599; 92 Stat. 2689); 41 U.S.C. 10a, 10c, and 10d; 49 CFR 1.51)

[43 FR 57145, Dec. 6, 1978, as amended at 48 FR 5814, Jan. 19, 1981]

Subpart D—Enforcement

§ 660.40 Purpose.

The purpose of this subpart is to describe the procedures that will be used by UMTA to enforce the provision of section 401 of the Act. This subpart also defines the rights of third parties.

§ 660.41 Initiation.

(a) It is presumed that a bidder who has submitted the certification required by § 660.21 of this part is complying with the Buy America provision. A false certification is a criminal act in violation of 18 U.S.C. 1001.

(b) Any party may petition UMTA to investigate the compliance of a successful bidder with the bidder's certification. If UMTA determines that evidence indicates that the presumption of paragraph (a) of this section has been overcome, UMTA will require the grantee to initiate an investigation as described in § 660.42.

§ 660.42 Investigation.

When an investigation is initiated under § 660.41(b), the grantee shall require the successful bidder to document its compliance with its Buy America certification. The successful bidder has the burden of proof to establish to the grantee and to UMTA that it is in compliance with its certification and this part.

§ 660.43 Failure to comply with certification.

If a successful bidder fails to demonstrate that it is in compliance with its certification or this part, it will be required to substitute sufficient domestic materials, articles, and supplies to meet the terms of the original certification without revision of the original contract terms. Failure to comply will be a breach of contract and will be actionable under the terms of the contract and state law.

§ 660.44 Sanctions.

A willful refusal to comply with certification by a successful bidder may lead to the initiation of debarment proceedings under 29 CFR 5.6.

§ 660.45 Rights of third parties.

The sole right of any third party under the Buy America provision is to petition UMTA under the provisions of § 660.41(b). No third party has any additional right, at law or equity, for any remedy including, but not limited to, injunctions, damages, or cancellation of the Federal grant or contracts of the public body.

PART 661—BUY AMERICA REQUIREMENTS—SURFACE TRANSPORTATION ASSISTANCE ACT OF 1982

Sec.

- 661.1 Applicability.
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- 661.20 Rights of third parties.
- 661.21 State Buy America provisions.

AUTHORITY: Sec. 165, Pub. L. 97-424; 49 CFR 1.51.

SOURCE: 48 FR 41564, Sept. 15, 1983, unless otherwise noted.

§ 661.1 Applicability.

(a) Except as otherwise provided in this section, these regulations apply to all federally assisted procurements utilizing funds authorized by the Urban Mass Transportation Act of 1964, as amended, the Surface Transportation Assistance Act of 1982, the Surface Transportation Assistance Act of 1978, and Title 23, United States Code which are administered by the Urban Mass Transportation Administration (UMTA) and which are obligated by UMTA after January 6, 1983. These regulations also apply to funds authorized by section 18 of the Urban Mass Transportation Act of 1964, as amended, that are administered by the Federal Highway Administration, and which are obligated after January 6, 1983.

(b) Under the provisions of section 165(b)(1) of the Act, these regulations do not apply to the following:

(1) A procurement contract entered into before January 6, 1983, under a Letter of No Prejudice issued by the Urban Mass Transportation Administration.

(2) A procurement contract using funds obligated after January 6, 1983, under a grant amendment which supplements a grant obligated prior to January 6, 1983, where the grant amendment does not change the scope of the original project.

(3) Any procurement using funds obligated after January 6, 1983, to pro-

vide planned supplementary funding, subject to the availability of funds, for a multi-year phased project which was initiated prior to January 6, 1983, if the initial procurement contract was awarded prior to January 6, 1983, and if the post-January 6, 1983, grant does not change the scope of the multi-year phased project.

(c) These regulations do not apply to a third party procurement contract for cement or cement products that is entered into by the grantee on or after March 9, 1984.

(Sec. 165, Pub. L. 97-424; sec. 10, Pub. L. 98-229; 49 CFR 1.51)

[48 FR 41564, Sept. 15, 1983, as amended at 50 FR 2289, Jan. 10, 1985]

§ 661.3 Definitions.

As used in this part:

(a) "Act" means the Surface Transportation Assistance Act of 1982 (Pub. L. 97-424).

(b) "Administrator" means the Administrator of the Urban Mass Transportation Administration.

(c) "Grantee" means any entity that is a recipient of UMTA funds.

(d) "Manufactured product" means a product produced as a result of manufacturing process.

(e) "Manufacturing process" means a process whereby an original material is changed or transformed into an article which, because of the process, is different from the original product.

(f) "Overall project contract" means the contract between a grantee and its prime contractor.

(g) "United States" means the several States, the Commonwealth of Puerto Rico, the District of Columbia, Guam, American Samoa, the Virgin Islands, and the Commonwealth of the Northern Mariana Islands.

§ 661.5 General requirements.

(a) Except as provided in §§ 661.7 and 661.11, no funds may be obligated by UMTA for a grantee project unless all steel and manufactured products used in the project are produced in the United States.

(b) For steel, all manufacturing processes must take place in the United States, other than metallurgi-

cal processes involving refinement of steel additives.

(c) The steel requirements apply to all steel items including, but not limited to, structural steel, running rail, and contact rail.

(Sec. 165, Pub. L. 97-424; sec. 10, Pub. L. 98-229; 49 CFR 1.51)

[49 FR 41564, Sept. 15, 1983, as amended at 50 FR 3289, Jan. 16, 1985]

§ 661.7 Exceptions.

(a) Section 165(b) of the Act provides that the general requirements of section 165(a) shall not apply in four specific instances. This section sets out the circumstances under which three of the four exceptions apply. Section 661.11 sets out the circumstances under which the "rolling stock" exception applies.

(b) The general requirements of section 165(a) shall not apply if their application would be inconsistent with the public interest. In determining whether this exception will be granted, the Administrator will consider all appropriate factors on a case by case basis, except for those general exceptions specifically set out in this part.

(c) The general requirements of section 165(a) shall not apply if materials are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality. In determining whether this exception will be granted, it will be presumed that the conditions exist if no responsive and responsible bid is received offering an item produced in the United States.

(d) The general requirements of section 165(a) shall not apply if the inclusion of domestic material will increase the cost of the overall project contract by more than 10 percent in the case of projects for the acquisition of rolling stock, and 25 percent in the case of all other projects. The 10 percent provision applies to the acquisition of buses, other rolling stock, and train control equipment, communication equipment, and traction power equipment. In determining whether the exception will be granted, the lowest responsive and responsible bid offering a non-United States produced item will be multiplied by 1.1 or 1.25, as appropriate. If the resulting amount is less

than the lowest responsive and responsible bid offering all items produced in the United States, then the exception will be granted.

(e) The statutory exceptions shall be treated as being separate and distinct from each other.

(f) The exceptions described in paragraphs (b) and (c) of this section may be granted if the items described in section 165(b)(3) of the Act are being procured. If an exception is granted for a component, that component shall be treated as domestic for the purposes of § 661.11.

APPENDIX A—GENERAL EXCEPTIONS

(a) All waivers published in 41 CFR 12-8.105 which establish excepted articles, materials, and supplies for the Buy American Act of 1933 (41 U.S.C. 10a-d), as the waivers may be amended from time to time, are incorporated by reference under the provisions of § 661.7 (b) and (c).

§ 661.9 Application for exceptions.

(a) This section sets out the application procedures for obtaining all exceptions except those general exceptions set forth in this part for which individual applications are unnecessary and those covered by section 165(b)(3) of the Act. The procedures for obtaining an exception covered by section 165(b)(3) are set forth in § 661.11.

(b) A bidder who seeks to establish grounds for an exception must seek the exception, in a timely manner, through the grantee.

(c) Only a grantee may request an exception. The request must be in writing, include facts and justification to support the exception, and be submitted to the Administrator through the appropriate Regional Administrator.

(d) The Administrator will issue a written determination setting forth the reasons for granting or denying the exception request. Each request for an exception, and UMTA's action on the request, are available for public inspection under the provisions of 49 CFR Part 601, Subpart C.

§ 661.11 Rolling stock procurement.

(a) The provisions of § 661.5 will not apply in the case of the procurement

of buses and other rolling stock (including train control, communication, and traction power equipment) if the cost of components which are produced in the United States is more than 50 percent of the cost of all components and final assembly takes place in the United States.

(b) A component is any article, material, or supply, whether manufactured or unmanufactured, that is directly incorporated into an end product at the final assembly location.

(c) An end product means any item subject to section 165(b)(3) of the Act that is to be acquired by a grantee, as specified in the overall project contract.

(d) In determining the origin of components, each component must be treated as either entirely domestic or entirely foreign, based on the place where the component is mined, produced, or manufactured. Components of unknown origin must be treated as foreign. The origin of subcomponents of components is immaterial. Transportation costs to the place of incorporation into the end product and, in the case of foreign components, applicable duties, must be included in determining component cost.

(e) The cost of a component is the price that a bidder or offeror must pay to a subcontractor or supplier for components for the items covered by section 165(b)(3). If the component is manufactured by the bidder or offeror, the cost of the component is the cost of labor and materials incorporated into the component, an allowance for profit, and the administrative and overhead costs attributable to that component under normal accounting principles. In accordance with section 165(c) of the Act, labor costs involved in final assembly shall not be included in calculating component costs.

(f) Final assembly is the effort expended at the final assembly point to manufacture the end-product.

(g) The final assembly requirement will be presumed to have been met if the cost of final assembly is at least 10 percent of the overall project contract cost.

(h) Train control equipment includes, but is not limited to, the following equipment:

- (1) Mimic board in central control.
- (2) Dispatchers console.
- (3) Local control panels.
- (4) Station (way side) block control relay cabinets.
- (5) Terminal dispatcher machines.
- (6) Cable/cable trays.
- (7) Switch machines.
- (8) Way side signals.
- (9) Impedance bonds.
- (10) Relay rack bungalows.
- (11) Central computer control.
- (i) Communication equipment includes, but is not limited to, the following equipment:
 - (1) Radios.
 - (2) Space station transmitter and receivers.
 - (3) Vehicular and hand-held radios.
 - (4) PABX telephone switching equipment.
 - (5) PABX telephone instruments.
 - (6) Public address amplifiers.
 - (7) Public address speakers.
 - (8) Cable transmission system cable.
 - (9) Cable transmission system multiplex equipment.
 - (10) Communication console at central control.
 - (11) Uninterruptible power supply inverters/rectifiers.
 - (12) Uninterruptible power supply batteries.
 - (13) Data transmission system central processors.
 - (14) Data transmission system remote terminals.
 - (15) Line printers for data transmission system.
 - (16) Communication system monitor test panel.
 - (17) Security console at central control.
 - (j) Traction power equipment includes, but is not limited to, the following:
 - (1) Primary AC switch gear.
 - (2) Primary AC transformers (rectifier).
 - (3) DC switch gear.
 - (4) Traction power console and CRT display system at central control.
 - (5) Bus ducts with buses (AC and DC).
 - (6) Batteries.
 - (7) Traction power rectifier assemblies.
 - (8) Distribution panels (AC and DC).
 - (9) Facility step-down transformers.

(10) Motor control centers (facility use only).

(11) Battery chargers.

(12) Supervisory control panel.

(13) Annunciator panels.

(14) Low voltage facility distribution switch board.

(15) DC connect switches.

(16) Negative bus boxes.

(17) Power rail insulators.

(18) Power cables (AC and DC).

(19) Cable trays.

(20) Instrumentation for traction power equipment.

(21) Connectors, tensioners, and insulators for overhead power wire systems.

(22) Negative drainage boards.

(23) Inverters.

(k) The power or third rail is not considered traction power equipment and is thus subject to the requirements of section 165(a) of the Act and the requirements of § 661.5.

(l) A bidder who is bidding on a contract for any of the items covered by section 165(b)(3) and who will comply with section 165(b)(3) and the regulations in this section is not required to follow the application for exceptions procedures set out in § 661.9 for the items covered by section 165(b)(3). In lieu of these procedures, the bidder must specifically certify in the certificate required by § 661.13(b) of this part that it will comply with section 165(b)(3) and § 661.11 of this part.

APPENDIX A—GENERAL EXCEPTIONS

(a) The provisions of § 661.11 do not apply when foreign sourced spare parts for buses and other rolling stock (including train control, communication, and traction power equipment) whose total cost is 10 percent or less of the overall project contract cost are being procured as part of the same contract for the major capital item.

§ 661.13 Grantee responsibility.

(a) The grantee shall adhere to the Buy America clause set forth in its grant contract with UMTA.

(b) The grantee shall include in its bid specification for procurement within the scope of these regulations an appropriate notice of the Buy America provision. Such specifications shall require, as a condition of responsiveness, that the bidder or offeror submit with the bid a completed Buy

America certificate indicating that the bidder or offeror will comply with the requirements of section 165(a) and the regulations set forth in this part.

§ 661.15 Investigation procedures.

(a) It is presumed that a bidder who has submitted the required Buy America certificate is complying with the Buy America provision. A false certification is a criminal act in violation of 18 U.S.C. 1001.

(b) Any party may petition UMTA to investigate the compliance of a successful bidder with the bidder's certification. That party ("the petitioner") must include in the petition a statement of the grounds of the petition and any supporting documentation. If UMTA determines that the information presented in the petition indicates that the presumption in paragraph (a) of this section has been overcome, UMTA will initiate an investigation.

(c) When UMTA initiates an investigation, it will request that the grantee require the successful bidder to document its compliance with its Buy America certificate. The successful bidder has the burden of proof to establish that it is in compliance. Documentation of compliance will be based on the specific circumstances of each investigation, and UMTA will specify the documentation required in each case.

(d) The grantee shall be required to reply to the request under paragraph (c) of this section within 15 working days of the request.

(e) Any additional information requested or required by UMTA must be submitted within 5 working days after the receipt of such request unless specifically excepted by UMTA.

(f) The grantee's reply (or that of the bidder) will be transmitted to the petitioner. The petitioner may submit comments on the reply to UMTA within 10 working days after receipt of the reply. The grantee and the low bidder will be furnished with a copy of the petitioner's comments, and they may submit rebuttal comments to UMTA within 5 working days after receipt of the petitioner's comments.

(g) The failure of a party to comply with the time limits stated in this sec-

tion may result in resolution of the investigation without consideration of untimely filed comments.

(h) UMTA shall, upon request, make available to any interested party information bearing on the substance of the investigation which has been submitted by the petitioner, interested parties or grantees, except to the extent that withholding of information is permitted or required by law or regulation. If a party submitting information considers that the information submitted contains proprietary material which should be withheld, a statement advising UMTA of this fact may be included, and the alleged proprietary information must be identified wherever it appears. Any comments on the information provided shall be submitted within a maximum of ten days.

(i) When a petition for investigation has been filed before award, the grantee will not make an award prior to the resolution of the investigation and when a request for investigation has been filed before the opening of bids, the grantee will not open bids prior to the resolution of the investigation, unless the grantee determines that:

(1) The items to be procured are urgently required;

(2) Delivery or performance will be unduly delayed by failure to make the award promptly; or

(3) Failure to make prompt award will otherwise cause undue harm to the grantee or the Federal Government.

(j) In the event that the grantee determines that the award is to be made during the pendency of an investigation, the grantee will notify UMTA prior to making such award. UMTA reserves the right not to participate in the funding of any contract awarded during the pendency of an investigation.

(k) Initial decisions by UMTA will be in written form. Reconsideration of an initial decision of UMTA may be requested by any party involved in an investigation. UMTA will only reconsider a decision if the party requesting reconsideration submits new matters of fact or points of law that were not known or available to the party during the investigation. Request for reconsideration of a decision of UMTA shall

be filed not later than ten (10) days after the initial written decision. A request for reconsideration shall be subject to the procedures, in this section, consistent with the need for prompt resolution of the matter.

§ 661.17 Failure to comply with certification.

If a successful bidder fails to demonstrate that it is in compliance with its certification, it will be required to take the necessary steps in order to achieve compliance. If a bidder takes these necessary steps, it will not be allowed to change its original bid price. If a bidder does not take the necessary steps, it will not be awarded the contract if the contract has not yet been awarded, and it is in breach of contract if a contract has been awarded.

§ 661.19 Sanctions.

A willful refusal to comply with certification by a successful bidder may lead to the initiation of debarment proceedings under 49 CFR Part 29 (proposed December 13, 1982 (47 FR 55700)).

§ 661.20 Rights of third parties.

The sole right of any third party under the Buy America provision is to petition UMTA under the provisions of § 661.15. No third party has any additional right, at law or equity, for any remedy including, but not limited to, injunctions, damages, or cancellation of the Federal grant or contracts of the grantee.

§ 661.21 State Buy America provisions.

(a) Except as provided in paragraph (b) of this section, any State may impose more stringent Buy America or buy national requirements than contained in section 135 of the Act and the regulations in this part.

(b) UMTA will not participate in contracts governed by the following:

(1) State Buy America or buy national preference provisions which are not as strict as the Federal requirements.

(2) State and local buy national or Buy America preference provisions which are not explicitly set out under State law. For example, administrative

interpretations of non-specific State legislation will not control.

(3) State and local buy local preference provisions.

PART 670—TRANSFER OF COMMUTER SERVICES

Sec.

670.1 Purpose.

670.3 Applicability.

670.5 Definitions.

670.7 Eligibility.

670.9 Commuter service transition assistance.

670.11 Projects or activities for which transition assistance may be expended.

670.13 Applications.

670.15 Waiver and modification.

670.17 Disbursement of commuter service transition assistance.

670.19 Record, audit and examination.

670.21 Effective date.

APPENDIX A—[RESERVED]

APPENDIX B—CAR MILE-REVENUE PASSENGER ALLOCATION—ACCOUNTING MANAGEMENT CONTROL DATA PROCESSING SYSTEM

APPENDIX C—CERTIFICATE

AUTHORITY: Sec. 1139(b), Northeast Rail Service Act of 1981, Subtitle E, Title XI, Pub. L. 97-35 (95 Stat. 652); regulations of the Office of the Secretary of Transportation, 49 CFR 1.40 and 1.51.

SOURCE: 47 FR 33969, Aug. 5, 1982, unless otherwise noted.

§ 670.1 Purpose.

The purpose of this part is to prescribe standards for the obligation of funds authorized under section 1139(b) of the Northeast Rail Service Act of 1981, Subtitle E of Title XI of Pub. L. 97-35, to ensure that commuter rail services operated by the Consolidated Rail Corporation under contract to commuter authorities are transferred either to those commuter authorities for operation directly or to the Northeast Commuter Services Corporation for operation on their behalf on or before January 1, 1983 and to ensure the equitable distribution of those funds.

§ 670.3 Applicability.

This part applies to applications for and disbursement of transition funds under section 1139(b) of the Northeast Rail Service Act of 1981 to facilitate the transfer of rail commuter services from Conrail to other operators.

§ 670.5 Definitions.

As used in this part:

(a) "Act" means the Northeast Rail Service Act of 1981, Subtitle E, Title XI, Pub. L. 97-35.

(b) "Administrator" means the Federal Railroad Administrator or his delegate and the Urban Mass Transportation Administrator or his delegate.

(c) "Applicant" means the Northeast Commuter Services Corporation or a commuter authority that submits an application for Federal assistance pursuant to this part.

(d) "CDOT" means the Connecticut Department of Transportation.

(e) "Commuter authority" means any State, local, or regional authority, corporation, or other entity that provides commuter service, as defined in section 1135(a)(4) of the Act, and for which Conrail was providing commuter service under section 303(b)(2) or 304(e) of the Regional Rail Reorganization Act of 1973, 45 U.S.C. 743(b)(2), 744(e), on August 13, 1981. Successors to these entities are also deemed to be commuter authorities.

(f) "Conrail" means the Consolidated Rail Corporation.

(g) "DelDOT" means the Delaware Department of Transportation.

(h) "MDOT" means the Maryland Department of Transportation.

(i) "MTA" means the Metropolitan Transportation Authority.

(j) "NJ Transit" means the New Jersey Transit Corporation.

(k) "NCSC" means Northeast Commuter Services Corporation created under section 501 of the Rail Passenger Service Act, 45 U.S.C. 581.

(l) "SEPTA" means the Southeastern Pennsylvania Transportation Authority.

§ 670.7 Eligibility.

NCSC and commuter authorities may apply to the Administrators under § 670.9 of this part for such commuter service transition assistance as is provided under this part.

§ 670.9 Commuter service transition assistance.

(a) *Transition assistance allocated to MDOT, DelDOT, and NCSC.* (1) MDOT, DelDOT, and NCSC together

shall be eligible to receive a total of \$5,000,000 in commuter transition assistance funds appropriated by Congress under section 1139(b) of the Act as follows:

MDOT shall be eligible to receive up to \$190,000;

DelDOT shall be eligible to receive up to \$30,000;

NCSC shall be eligible to receive up to \$4,780,000.

In addition, NCSC shall be eligible to receive any funds for which DelDOT or MDOT is eligible but which are not distributed to those commuter authorities.

(2) Commuter transition funds provided to NCSC shall be used to cover general administrative expenses and the costs of services it provides in common for all commuter authorities, such as the transfer of assets from Conrail to the commuter authorities. With the approval of the Administrator, NCSC may also expend funds allocated pursuant to this paragraph (a) for the purposes outlined in paragraph (c)(1) of this section.

(3) To the extent that NCSC does not require all the funds for which it is eligible under this paragraph (a), such funds shall be reallocated by, and in the discretion of, the Administrator among the commuter authorities to reimburse transition expenses not otherwise funded hereunder. Such reallocated funds shall be in addition to the funds provided to the commuter authorities under paragraphs (a) (1) or (b) of this section.

(b) *Transition assistance allocated to MTA, CDOT, NJ Transit, and SEPTA.* (1) MTA, CDOT, NJ Transit, and SEPTA shall be eligible to receive a total of \$120,000,000 in commuter transition funds appropriated by Congress under section 1139(b) of the Act as follows:

MTA and CDOT together shall be eligible to receive up to \$59,000,000;

NJ Transit shall be eligible to receive up to \$22,000,000;

SEPTA shall be eligible to receive up to \$39,000,000.

(2) Except for the specific expense categories outlined in paragraph (c) of this section, transition assistance funds made available under this para-

graph (b) shall be provided directly to the commuter authorities.

(c) *Direct commuter authority allocations to NCSC.* Transition assistance funds allocated under paragraph (b) shall be provided directly to NCSC rather than to the appropriate commuter authorities for the following categories of eligible expenses:

(1) *Accounting management control data processing system.* Up to \$3 million of the funds allocated to SEPTA, MTA and CDOT shall be provided directly to NCSC to cover the costs of development of the Accounting Management Control Data Processing System to be used by these agencies. The share of the costs of development of the system to be borne by each agency shall be calculated on the basis of calendar year 1980 car mile and revenue passenger data provided by Conrail to each agency. The share for each agency shall be an amount equal to the sum of:

(i) Fifty percent of the cost of the development of the system multiplied by the percentage that the number of car miles of commuter service operated for the commuter authority by Conrail in 1980 represents of the total number of car miles operated for all three commuter authorities (SEPTA, MTA and CDOT) by Conrail in 1980; and

(ii) Fifty percent of the cost of the development of the system multiplied by the percentage that the number of revenue passengers carried by Conrail for the commuter authority in 1980 represents of the total number of revenue passengers for all three commuter services (SEPTA, MTA and CDOT) operated by Conrail in 1980. The derivation of each commuter authority's allocation is presented in Appendix B. In the event NCSC does not require the full amount for development of the system, the remaining funds shall be reallocated to SEPTA, MTA, and CDOT in accordance with the formula described in this subsection.

(2) *Labor negotiations.* Up to \$750,000 of the funds allocated to SEPTA shall be provided directly to NCSC to cover the costs of the labor negotiation effort to be conducted by NCSC on behalf of SEPTA. In the event NCSC does not require the full

amount allocated to it for this purpose, the remaining funds shall be distributed to SEPTA.

(d) *Applicants.* NCSC shall be the applicant for transition assistance for its general administrative expenses, for services it provides for all commuter authorities, for development of the Accounting Management Control Data Processing System, and for labor negotiations conducted on behalf of SEPTA. Commuter authorities shall be the applicants for all other transition assistance.

(e) *Timing of Transition Assistance.* Transition assistance funds appropriated by Congress pursuant to section 1139(b) of the Act in the 1982 Department of Transportation and Related Agencies Appropriation Act (Pub. L. 97-102) shall be made available for disbursement to applicants as of February 4, 1982. Transition assistance funds appropriated by Congress in the 1983 Department of Transportation and Related Agencies Appropriation Act (Pub. L. 97-369) shall be made available for disbursement to applicants as of December 18, 1982. All funds shall remain available until October 1, 1986.

[47 FR 33969, Aug. 5, 1982, as amended at 48 FR 11273, Mar. 17, 1983]

§ 670.11 Projects or activities for which transition assistance may be expended.

(a) *Eligible Costs.* Transition projects or activities which qualify for Federal funding include the following, subject to the Administrators' determination that such projects or activities are directly related to the transfer of commuter operations:

(1) Planning and study costs incurred in deciding whether to provide post-transfer service directly or through NCSC;

(2) Planning, labor consultant, and legal expenses incurred in effecting the transfer of service from Conrail to other operators including all activities undertaken by NCSC or commuter authorities to implement provisions of the Northeast Rail Service Act of 1981;

(3) Planning and study costs incurred in making decisions about post-transfer routes and levels of service;

(4) Purchase of necessary parts, fuel and other inventory, tools, equipment, rolling stock, and facilities from Conrail and other entities: Provided, that Federal funding may not be used for acquisition of fixed facilities and rolling stock from Conrail, which are required to be transferred without consideration under section 506(g) of the Rail Passenger Service Act, 45 U.S.C. 586(g);

(5) Costs incurred for additional staffing and working capital required by NCSC or commuter authorities electing to undertake direct operation: Provided, however, that funding for additional staffing for commuter authorities shall be limited to transition staffing needs and shall not include personnel operating costs currently incurred in the normal course of business; and

(6) Start-up costs of NCSC or of commuter authorities operating their own service, including costs of acquiring data processing, implementing financial and operating systems, and financing transfer or replication of operating plans and procedures.

(b) *Other eligible expenses.* The Administrators will consider applications for transition assistance from NCSC or commuter authorities for projects or activities not listed in subsection (a) of this section provided such projects or activities are directly related to the transfer of commuter service from Conrail to other operators. However, transition assistance will not be provided to cover the costs of capital items and operating expenses unrelated to the transfer.

(c) *Timing of expenditures.* Eligible costs for NCSC and the commuter authorities include expenses incurred from October 1, 1981.

§ 670.13 Applications.

(a) *Applications for transition assistance funds.* Each application shall include, in the order indicated and identified by applicable section numbers and letters corresponding to those used in this part, the following information as to the applicant:

(1) Full and correct name and principal business address;

(2) Name, title, and address of the person to whom correspondence regarding the application should be addressed;

(3) A detailed description of the projects or activities for which assistance is sought, together with timetables which show estimated completion dates for each such project or activity;

(4) The total amount of assistance requested with a funding level justification for each project or activity;

(5) Evidence that the applicant has established, in accordance with Attachment G to Office of Management and Budget Circular A-102, adequate procedures for financial control, accounting, and performance evaluation, in order to assure proper use of the Federal funds;

(6) An assurance by the applicant that it will use Federal funds provided under the Act solely for the purposes for which assistance is sought and in conformance with the limitations on the expenditures allowed under the Act and applicable regulations;

(7) Two copies of a minority business enterprise plan prepared in accordance with 49 CFR Part 23;

(8) Assurances that the applicant will comply with the following Federal laws, policies, regulations, and pertinent directives:

(i) Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d *et seq.*), and DOT regulations issued thereunder (49 CFR Part 21);

(ii) If construction is involved, Executive Order 11246 and Department of Labor regulations issued thereunder (41 CFR Part 60);

(iii) Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and DOT regulations issued thereunder (49 CFR Part 27);

(iv) DOT regulations governing the use of minority business enterprises (49 CFR Part 23);

(v) 40 CFR Part 1520 which prohibits the use of financial assistance for facilities on the Environmental Protection Agency's list of violating facilities;

(9) An opinion of the applicant's legal counsel advising that (i) counsel is familiar with (A) the applicant's corporate or other organizational powers; (b) section 1139(b) of the Act; (C) the

other Acts referred to in these regulations; and (D) any regulations issued to implement those Acts;

(ii) The applicant is authorized to make the application including all certifications, assurances, and affirmations required;

(iii) The applicant has the requisite authority to carry out the actions proposed in the application and to fulfill the obligations created thereby; and

(iv) The applicant has the authority to enter into all of the legal commitments referred to in paragraph (a)(3) of this section and that these commitments are legal and binding upon the applicant and enforceable in accordance with their terms;

(10) For purchases covered by § 670.11(a)(4) executed copies of any agreements between the applicant and Conrail or another entity; and

(11) Any other information the Administrators may deem necessary concerning an application filed under this part.

(b) *Subsequent applications for transition assistance funds.* Each subsequent application for transition assistance funds shall include the information submitted in paragraph (a) except that any information or material that has been submitted by an applicant need not be resubmitted if the prior submission is identified and incorporated by reference in the application. Where the prior submission is in need of any changes, the changes may be submitted provided the prior submission is identified and incorporated by reference. Any assurance, certification, or affirmation previously made by the applicant, in connection with a prior submission, must be reaffirmed by the applicant when any identification and incorporation by reference of previously submitted materials is made.

(c) *Execution and filing of application.* (1) Each application shall bear the date of execution and be signed by the Chief Executive Officer of the applicant. Each person required to execute the application will execute a certificate in the form of Appendix C to this part.

(2) Each original application and certificate, and four copies thereof, shall be filed with the Urban Mass

§ 670.15

Transportation Administrator, Department of Transportation, 400 Seventh Street, SW., Washington, D.C. 20590. Each copy shall show the dates and signatures that appear in the original and shall be complete in itself.

[47 FR 33969, Aug. 5, 1982, as amended at 48 FR 11274, Mar. 17, 1983]

§ 670.15 Waiver and modification.

The Administrators, upon good cause shown, may waive or modify any requirement of this part not required by law or make any additional requirements they deem necessary.

§ 670.17 Disbursement of commuter service transition assistance.

After receipt, review, and approval of an application meeting the requirements of this part, the Administrators will enter into a grant agreement with an applicant for the approved amount of transition assistance. The terms and conditions of payment shall be set forth in the grant agreement.

§ 670.19 Record, audit and examination.

(a) Each recipient of transition assistance under this part shall keep such records as the Administrators shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which such assistance was given or used, and such other records as will facilitate an effective audit.

(b) Until the expiration of three years after the completion of the project or undertaking referred to in paragraph (a) of this section, the Administrators and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, and records of

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such receipts which, in the opinion of the Administrators or the Comptroller General, may be related or pertinent to such financial assistance.

§ 670.21 Effective date.

This part is effective October 1, 1981.

APPENDIX A—[RESERVED]

APPENDIX B—CAR MILE—REVENUE PASSENGER ALLOCATION ACCOUNTING MANAGEMENT CONTROL DATA PROCESSING SYSTEM

[1980 Conrail Data]

	A	B	C	D
	Car miles (000's)	Per- cent	Revenue passengers (000's)	Per- cent
MTA/ CDOT.	28,323	70.37	49,267	61.71
SEPTA.....	11,926	29.63	30,571	38.29
Total.....	40,249	100.00	79,838	100.00

Commuter Authority Allocations

	B × 50%	+	D × 50%	=	Allocation.
MTA/ CDOT.	70.37% × 50%		61.71% × 50%	=	66 pct.
SEPTA.....	29.63% × 50%		38.29% × 50%	=	34 pct.

APPENDIX C—CERTIFICATE

The following is the form of the certificate to be executed by each person signing an application: _____ (Name of Person) certifies that he is the Chief Executive Officer of _____ (Name of Applicant); that he is authorized to sign and file this application with the Federal Railroad Administrator and the Urban Mass Transportation Administrator; that he has carefully examined all of the statements contained in the application; that he has knowledge of the matters set forth therein and that all statements made and matters set forth therein are true and correct to the best of his knowledge, information and belief.

CHAPTER VII—NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)

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PART 700—ORGANIZATION, FUNCTIONING AND AVAILABLE INFORMATION

Sec.

700.1 Purpose.

700.2 Organization and functioning of Amtrak.

700.3 Availability of documents, assistance, and information.

AUTHORITY: 5 U.S.C. 552(a) (1), (2).

SOURCE: 49 FR 24378, June 13, 1984, unless otherwise noted.

§ 700.1 Purpose.

This part describes the organization and functioning of Amtrak and the availability to the public of documents and information concerning its policies, procedures and activities.

§ 700.2 Organization and functioning of Amtrak.

The creation of the National Railroad Passenger Corporation ("Amtrak") was authorized by the Rail Passenger Service Act, as amended, 84 Stat. 1327, 45 U.S.C. 541 *et seq.* ("the Act"). The Act requires that Amtrak be operated and managed as a for-profit corporation, that it be incorporated under the District of Columbia Business Corporation Act, and subject to the provisions of that statute to the extent not inconsistent with the Act, and that it provide a balanced transportation system by developing, operating, and improving intercity rail passenger service. The Act also states that Amtrak will not be an agency or establishment of the United States Government. Amtrak thus is a corporation created by Congress to compete for the transportation business of the intercity traveller, to the end that the travelling public will have a choice of travel modes. The address of its headquarters is 400 North Capitol Street, NW., Washington, D.C. 20001. Telephone: (202) 383-3000.

(a) *Board of Directors.* Amtrak's major policies are established by its board of directors. The nine members of the board are selected as follows: The Secretary of Transportation serves as an ex-officio member and Amtrak's President, ex-officio, is Chairman of the Board; three members are appointed by the President of

the United States and confirmed by the Senate (representing labor, State Governors, and business); two represent commuter authorities and are selected by the President from lists drawn up by those authorities; and two are selected by the Corporation's preferred stockholder, the Department of Transportation.

(b) *Officers and Central Management.* Amtrak is managed by a President and a Management Committee consisting of four Executive Vice Presidents. Reporting to the Executive Vice Presidents are eleven vice presidents representing sales, transportation marketing, planning and development, computer services, labor relations, finance and treasurer, personnel, passenger and operating services, government affairs, operations and maintenance, engineering, and the General Counsel. Areas handled as special matters with the authority of vice presidents, such as corporate communications, safety, real estate, procurement, materials management, police and security, contract administration, and internal audit are supervised by assistant vice presidents and directors.

(c) *Regional and Field Structure.* The need for decentralization of functions in the areas of passenger services and transportation operations has led to the creation of Amtrak's regional and field structure. Field offices are located in major cities such as Baltimore, Philadelphia, New York, Albany, Boston, Chicago, Seattle and Los Angeles. Pursuant to overall policies established at headquarters in Washington, D.C., these offices handle matters like the assignment and scheduling of employees who work on board moving trains; purchase, stowage and preparation of food for dining service; maintenance and rehabilitation of rolling stock; and daily operating arrangements such as the make-up of trains or the cleaning and repairing of cars on trains.

(d) *Route system.* Amtrak's basic route system has been established pursuant to statutory guidelines, and in some cases by specific statutory directive. Out of a route system covering about 23,000 route-miles, Amtrak owns a right-of-way of about 2,600 track

miles in the Northeast Corridor (Washington-New York-Boston; New Haven-Springfield; and Philadelphia-Harrisburg) and small segments of track near Albany, New York, and Kalamazoo, Michigan. In the Northeast Corridor Amtrak trains are run by operating crews consisting of Amtrak employees. On other routes, Amtrak operates trains on the tracks of about twenty different privately owned railroads and compensates the railroad for the use of their facilities and for the services of their employees, including engineers, conductors, and maintenance personnel. Those private railroads are responsible for the conditions of the roadbed and for coordinating the flow of traffic over their lines.

(e) *Operations.* Amtrak provides about 250 trains daily, serving about 500 stations in over forty states. Amtrak owns most of its cars and locomotives, some of its stations, and most of its repair facilities. Its capital improvements and almost half of its operating losses are supported principally through Federal financing, with some State, regional and local financial support for some trains and stations. Congress requires Amtrak, to earn revenues equivalent to at least fifty percent of its operating costs, and it currently does so.

(f) *Revenue Production.* The sale of tickets for transportation and accommodations, Amtrak's principal source of revenue, is accomplished through Amtrak ticket agents at stations, travel agencies, and five central reservation offices which service a nationwide telephone network. National Timetables contain basic information about routes, stations, and services.

§ 700.3 Availability of documents, assistance, and information.

(a) A member of the public having need for assistance or information concerning any of the matters described in § 700.2 should address his or her concerns in a letter or other written communication directed to the appropriate vice president or to the Director of Corporate Communications. Amtrak will bring such communications to the attention of the appropriate official if they are misdirected in

the first instance. Formal requests for "records" under 5 U.S.C. 552(a)(3) of the Freedom of Information Act are to be made in accordance with the provisions of 49 CFR 701.4.

(b) The National Train Timetables described in § 700.2(f) are widely distributed in the continental United States and are available in major cities in Europe, Canada and Mexico. When they are updated (usually in April and October each year) each printing involves about 1,000,000 copies. They are ordinarily available at staffed Amtrak stations and copies are usually kept on hand in the offices of about 9800 travel agents who are authorized to sell Amtrak tickets. A person unable to obtain a copy locally should request one from the Director of Corporate Communications at the Washington, D.C. headquarters. The timetable depicts the major Amtrak train routes on a map of the United States, and most of the remainder of the booklet shows the schedules for specific trains. Several pages are used to offer travel information dealing with the availability of assistance to handicapped travellers, red cap service, purchase of tickets on board, use of credit cards and personal checks, handling of baggage, refunds for unused tickets and similar matters.

(c) Also available to members of the public at most staffed Amtrak stations, and usually maintained in the offices of travel agencies authorized to sell Amtrak tickets, is a copy of the Reservations and Ticketing Manual (RTM) which constitutes a compendium of information governing Amtrak employees in furnishing transportation to the travelling public. It contains substantial segments dedicated to the following topics: Amtrak's computer system and its communication codes; interline service agreements; passenger and baggage services; customer relations functions; reservations policy and procedures; acceptance of checks and credit cards; refunds; missed connection policies; ticketing; accommodations; employee pass travel; location maps for Amtrak stations; and intermodal state maps.

(d) A full statement of Amtrak's tariffs containing the fares for point-to-point travel, regional plan travel and

all relevant travel conditions, such as excursions, discounts, family plans, accommodations, etc., is contained in the privately published *Official Railway Guide*, which is available by subscription from its publisher at 424 West 33rd Street, New York, New York 10001. A copy of the guide can usually be found at each staffed Amtrak station, and at the offices of travel agents authorized to sell Amtrak tickets. Tariff changes which occur between issues of the Guide are published and widely distributed by Amtrak pending their publication in the next issue of the Guide.

(e) Each of the documents described in paragraphs (b) through (d) of this section is available to the public for inspection during regular business hours at the office of Amtrak's Freedom of Information Office at its headquarters at 400 North Capitol Street, NW., Washington, D.C. 20001, and at the office of the Division Manager, Human Resources, in New Haven, Philadelphia, Baltimore, New York, Los Angeles and Chicago. Each document has its own index. Since each index is useful only in connection with the document to which it pertains, and since requests for indices are uncommon, Amtrak has determined that publication of its indices as described in 5 U.S.C. 552(a)(2) would be unnecessary and impracticable.

PART 701—FREEDOM OF INFORMATION ACT REGULATIONS

Sec.

701.1 Purpose.

701.2 Definitions.

701.3 Policy.

701.4 Availability of records on request.

701.5 Time limits.

701.6 Appeals from denials of records or setting of fees.

701.7 Fees.

AUTHORITY: Sec. 306(g), Rail Passenger Service Act, 45 U.S.C. 546(g).

SOURCE: 47 FR 17822, Apr. 26, 1982, unless otherwise noted. Redesignated at 49 FR 24378, June 13, 1984.

EDITORIAL NOTE: For nomenclature changes to this part, see 49 FR 24378, June 13, 1984.

§ 701.1 Purpose.

This part prescribes the procedures by which records of the National Railroad Passenger Corporation may be made available to the public pursuant to section 306(g) of the Rail Passenger Service Act, 45 U.S.C. 546(g), and the Freedom of Information Act, 5 U.S.C. 552.

§ 701.2 Definitions.

Unless the context requires otherwise, the following apply in this part:

(a) Masculine pronouns include the feminine gender.

(b) Definitions:

Corporation or *Amtrak* means the National Railroad Passenger Corporation.

Includes means "includes but is not limited to".

President means the President of the Corporation.

Record means any writing, drawing, map, recording, tape, film, photograph, or other documentary material by which information is preserved, but does not include library materials compiled for reference purposes or objects of substantial intrinsic value.

§ 701.3 Policy.

(a) The National Railroad Passenger Corporation will make records within the Corporation available to the public to the greatest practicable extent in keeping with the spirit of the FOIA. Therefore, all records of the Corporation—except those that the Corporation specifically determines should not be disclosed either in the public interest, for the protection of private rights, or for the efficient conduct of public or corporate business, but only to the extent withholding is permitted by the Freedom of Information Act—are declared to be available for public inspection and copying as provided in these procedures. A record will not be withheld from the public solely because its release might suggest administrative error or embarrass an officer or employee of the Corporation. Each officer and employee of the Corporation dealing with record requests is directed to cooperate to the end of making

records available to the public promptly, consistent with this policy.

(b) A requested record of the Corporation may be withheld from disclosure only if it comes within one or more of the exemptions in 5 U.S.C. 552(b).

(c) In the event one or more of the exemptions applies to a record, any reasonably segregable portion of the record will be made available to the requesting person after deletion of the exempt portions.

(d) These procedures apply only to records in existence at the time of a request. The Corporation has no obligation to create a record solely for the purpose of making it available under the FOIA.

§ 701.4 Availability of records on request.

(a) Each person desiring access to a record or to have a copy of a record pursuant to the Freedom of Information Act shall comply with the following provisions:

(1) The request for the record shall be in writing.

(2) The request shall indicate that it is being made under the Freedom of Information Act.

(3) The envelope in which the request is sent shall be prominently marked with the symbol "FOIA".

(4) The request shall be addressed to the Vice-President, Corporate Communications, AMTRAK, 400 North Capitol Street, NW., Washington, D.C. 20001.

(b) If the requirements of paragraph (a) of this section are not met, the ten (10) day time limit described in § 701.5 will not begin to run until the request has been identified by an employee of the Corporation as a request under the Freedom of Information Act and has been received by the Corporate Communications Department.

(c) Each request should describe the particular record or records desired. To the extent practicable, the request should specify such features as the subject matter of the record, the date when it was made, the place where it was made and the person or office that made it. Generally, a request will be acceptable if it identifies a record with sufficient particularity to enable an employee of the Corporation to

locate the record with a reasonable amount of effort. If the description is insufficient to permit location of a record, the employee handling the request will notify the requester and indicate the additional kinds of data which will facilitate the search.

(d) The submission of a FOIA request constitutes an agreement by the requester to pay the fees specified in § 701.7, unless the requester is entitled to a fee waiver or specifies in his request a different amount to which the Corporation agrees.

§ 701.5 Time limits.

(a) An initial determination whether to release records requested under this part shall be made within ten (10) days (excepting Saturdays, Sundays, and legal public holidays) after the request is received, except that this time limit may be extended by up to ten (10) working days in accordance with paragraph (c) of this section. The person making the request will be given prompt notice of any extension of time. If a determination is made to release a requested record, the record shall be made promptly available. If the determination is to decline to disclose the record, the person making the request shall, at the same time he is notified of such determination, be notified of:

(1) The reason for the determination; including citation of the relevant exemption relied on for denial;

(2) The right of the requester to appeal the determination; and

(3) The name and title or position of each person responsible for denial of the request.

(b) A determination with respect to an appeal made pursuant to § 701.6 shall be made within twenty (20) days (excepting Saturdays, Sundays, and legal public holidays) after receipt of such appeal, except that this time limit may be extended by up to ten (10) working days in accordance with paragraph (c) of this section. The person making the request will be notified promptly if the time is extended.

(c) In unusual circumstances the time limits prescribed in this section may be extended by written notice to the person making a request setting

forth the reasons for such extension and the date on which a determination is expected to be dispatched. Such notice shall not specify a date that would result in a cumulative extension of more than ten (10) working days. As used in this subsection, "unusual circumstances" means, but only to the extent reasonably necessary for the proper processing of the particular request—

(1) The need to search for and collect the requested records from field facilities or other establishments that are separate from the office processing the request;

(2) The need to search for, collect, and appropriately examine a voluminous amount of separate and distinct records which are demanded in a single request; or

(3) The need for consultation, which shall be conducted with all practicable speed, with another entity having a substantial interest in the determination of the request or among two or more components of an entity having substantial subject matter interest therein.

§ 701.6 Appeals from denials of records or setting of fees.

Each denial decision will set forth the reasons therefor and state the appeal from that decision that is available to the requester. A decision denying access to a document or setting fees may be appealed to the President of the Corporation by filing with his office a written notice of appeal, within thirty (30) days after the date of the denial, specifying the relevant facts and the basis for appeal. If the President denies the appeal, the denial shall set forth the reasons therefor and notify the requester of the provision for judicial review contained in 5 U.S.C. 552(a)(4)(B).

§ 701.7 Fees.

(a) The National Railroad Passenger Corporation shall charge a fee of \$10.00 per hour (per person) when a search for records is conducted by a clerical employee and \$15.00 per hour (per person) when the search is conducted by a professional employee.

There will be a charge of 15¢ per page to photocopy records. The fee for copies of material requiring other methods of reproduction is the direct cost of reproduction and handling. No fee will be levied for searches less than 30 minutes, reproduction of less than 20 pages, or where the combined cost of search and duplication is less than \$20.00.

(b) Documents will be furnished without charge or at a reduced charge if the Vice-President, Corporate Communications, determines that a waiver or reduction of the fee is in the public interest because furnishing the information can be considered as primarily benefiting the general public. Examples of requests that may fall within this paragraph are requests from: (1) Groups engaged in a nonprofit activity designed for public safety, health or welfare; (2) schools; and (3) students engaged in study of the field of transportation.

(c) Except for services performed without charge or at a reduced charge, each request for a search of records or for a copy of a record should be accompanied by the fee calculated as prescribed in paragraph (a) of this section. When the fee is not readily ascertainable without examination of the records, the office or employee receiving the request will furnish an estimate of the fee to the person making the request, or the fee may be collected after the records are made available. The Corporation may require advance payment of fees if a requester has failed to honor a previous commitment to pay fees that were owed the Corporation, or if the Corporation reasonably determines that the requester is likely to be unwilling or unable to pay the probable fees. No search fee shall be charged if records are not located, or are located but not made available to the requester. However, with respect to a request not entitled to a fee waiver, the Corporation may assess search fees if the requester insists on further search after being informed by the Corporation, based on a reasonable preliminary search, that the search is unlikely to be productive.

CHAPTER VIII—NATIONAL TRANSPORTATION SAFETY BOARD

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PART 800—ORGANIZATION AND FUNCTIONS OF THE BOARD AND DELEGATIONS OF AUTHORITY

Subpart A—Organization and Functions

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- 800.23 Delegation to the administrative law judges, Office of Administrative Law Judges.
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- 800.28 Delegation to the Director, Bureau of Field Operations.

APPENDIX—REQUEST TO THE SECRETARY OF THE DEPARTMENT OF TRANSPORTATION TO INVESTIGATE CERTAIN AIRCRAFT ACCIDENTS

AUTHORITY: Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2166 (49 U.S.C. 1901 et seq.).

SOURCE: 49 FR 26232, June 27, 1984, unless otherwise noted.

Subpart A—Organization and Functions

§ 800.1 Purpose.

This part describes the organization, functions, and operation of the National Transportation Safety Board (Board).

§ 800.2 Organization.

The Board consists of five Members appointed by the President with the advice and consent of the Senate. One of the Members is designated by the President as Chairman with the advice and consent of the Senate, and one as Vice Chairman. The Members exercise the functions, powers, and duties of Titles VI and VII of the Federal Aviation

Act of 1958 (49 U.S.C. 1441), and the Independent Safety Board Act of 1974 (88 Stat. 2166 et seq. (49 U.S.C. 1901 et seq.)). The Board is an independent agency of the United States. A detailed description of the Board and its components is published in the Board's internal orders, which are available for inspection and copying in the public reference room in the Washington office of the Board. The various delegations of authority from the Board and the Chairman to the staff are set forth in Subpart B of this part. The Board's staff is comprised of the following principal components:

(a) The Office of the Managing Director, which assists the Chairman in the discharge of his functions as executive and administrative head of the Board, coordinates and directs the activities of the staff, is responsible for the day-to-day operation of the Board, and recommends and develops plans to achieve the Board's program objectives. The Office of the Managing Director also provides executive secretariat services to the Board.

(b) The Office of Government and Public Affairs, which supplies the public, the Congress, other Federal, state and local government agencies, the transportation industry and the news media, with current, accurate information concerning the work, programs, and objectives of the Board.

(c) The Office of the General Counsel, which provides legal advice and assistance to the Board and its staff components, prepares Board rules, opinions and/or orders, and advice to all offices and bureaus on matters of legal significance; and represents the Board in court actions to which the Board is a party or in which the Board is interested.

(d) The Office of Administrative Law Judges, which conducts all formal proceedings arising under Title VI of the Federal Aviation Act of 1958, including proceedings involving suspension or revocation of certificates and appeals from actions of the Administrator, Federal Aviation Administration, in refusing to issue airman certificates.

(e) The Bureau of Accident Investigation, which conducts investigations of all major transportation accidents

and other marine, pipeline and hazardous materials accidents within the Board's jurisdiction; recommends to the Board whether a public hearing or deposition proceeding should be held to determine the facts, conditions, and circumstances of major accidents; prepares a report for release to the public regarding such accidents for submission to the Board including a recommendation as to the probable cause(s); determines the probable cause(s) of accidents where delegated authority to do so by the Board; initiates safety recommendations to prevent future transportation accidents; and participates in the investigation of accidents which occur in foreign countries and which involve U.S.-registered and/or U.S.-manufactured aircraft, pursuant to Annex 13 of the Chicago Convention.

(f) The Bureau of Field Operations, which oversees the Board's field offices located throughout the United States, and conducts all aviation, rail and highway accident investigations within the Board's jurisdiction other than those conducted by the Bureau of Accident Investigation; prepares a report for release to the public regarding such accidents; determines the probable cause(s) of accidents where authority to do so is delegated by the Board; initiates safety recommendations to prevent future transportation accidents; and conducts special investigations into selected aviation, rail or highway accidents involving safety issues of concern to the Board.

(g) The Bureau of Technology, which provides technical advice and services, conducts research, and carries out analytical studies and tests on all aspects of the Board's accident investigation, accident prevention, and safety promotion activities, including safety recommendations, studies, and special investigations.

(h) The Bureau of Safety Programs, which conducts safety studies of specific safety issues; coordinates the development of and follow-up on the safety recommendations issued by the Board; coordinates preparation of Board comments on Notices of Proposed Rulemaking by other Federal agencies which involve transportation safety issues; provides statistical anal-

yses of transportation accident and incident data; and prepares transportation safety program proposals for submission to the Board.

(i) The Bureau of Administration, which provides administrative support for the Board in the following areas: Budget, accounting and audit; personnel, training and payroll; information management and automatic data processing; property, space, communications, facilities and transportation management; and printing, publications, mail, procurement, contracting, and accident inquiry services.

§ 800.3 Functions.

(a) The primary function of the Board is to promote safety in transportation. The Board is responsible for the investigation, determination of facts, conditions, and circumstances and the cause or probable cause or causes of: All accidents involving civil aircraft; highway accidents including railroad grade-crossing accidents, the investigation of which is selected in cooperation with the States; railroad accidents in which there is a fatality, substantial property damage, or which involve a passenger train; pipeline accidents in which there is a fatality or substantial property damage; and major marine casualties and marine accidents involving a public and a non-public vessel or involving Coast Guard functions. The Board makes transportation safety recommendations to Federal, State, and local agencies, and private organizations, to reduce the likelihood of recurrence of transportation accidents. It initiates and conducts safety studies and special investigations on matters pertaining to safety in transportation, assesses techniques and methods of accident investigation, evaluates the effectiveness of transportation safety consciousness and efficacy in preventing accidents of other Government agencies, and evaluates the adequacy of safeguards and procedures concerning the transportation of hazardous materials.

(b) Upon application of affected parties, the Board reviews in quasi-judicial proceedings, conducted pursuant to the provisions of the Administrative Procedure Act, 5 U.S.C. 551 et seq., de-

nials by the Administrator of the Federal Aviation Administration of applications for airman certificates and orders of the Administration modifying, amending, suspending, or revoking certificates. The Board also reviews on appeal the decisions of the Commandant, U.S. Coast Guard, on appeals from orders of administrative law judges suspending, revoking, or denying seamen licenses, certificates, or documents.

(c) The Board, as provided in Part 801 of this chapter, issues reports and orders pursuant to its duties to determine the cause or probable cause or causes of transportation accidents and to report the facts, conditions and circumstances relating to such accidents; issues opinions and/or orders after reviewing on appeal the suspension, amendment, modification, revocation, or denial of any certificate or license issued by the Secretary of the Department of Transportation (who acts through the Administrator of the Federal Aviation Administration or the Commandant of the United States Coast Guard); and issues and makes available to the public safety recommendations, safety studies, and reports of special investigations.

§ 800.4 Operation.

In exercising its functions, duties, and responsibilities, the Board utilizes:

(a) The Board's staff, consisting of specialized bureaus and offices dealing with particular areas of transportation safety and performing administrative and technical work for the Board. The staff advises the Board and performs duties for the Board that are inherent in the staff's position in the organizational structure or that the Board has delegated to it. The staff is described more fully in § 800.2.

(b) Rules published in the **FEDERAL REGISTER** and codified in this Title 49 of the Code of Federal Regulations. These rules may be inspected in the Board's public reference room, or purchased from the Superintendent of Documents, Government Printing Office.

(c) Procedures and policies set forth in the agency's internal directives system which govern the activities of employees and organizational compo-

nents of the Board. The internal directives system is designated as the **NTSB Manual** and consists of instructions which are called **NTSB Orders** and **NTSB Notices**.

(d) Meetings of the Board Members conducted pursuant to the Government in the Sunshine Act.

(e) Public hearings in connection with transportation accident investigations and public hearings and oral arguments in proceedings concerned with certificates or licenses issued by the Secretary or an Administrator of the Department of Transportation. They are held at the time and place announced in the notices thereof which are served on the parties to the proceedings or published in the **FEDERAL REGISTER**.

§ 800.5 Office locations.

The principal offices of the National Transportation Safety Board are located at 800 Independence Avenue, SW., Washington, D.C. 20594. The Board maintains field offices in selected cities throughout the United States.

§ 800.6 Availability of information and materials.

Part 801 of this chapter provides detailed information concerning the availability of Board documents and records. That part also provides a fee schedule and information concerning inspection and copying.

Subpart B—Delegations of Authority to Staff Members

§ 800.21 Purpose.

The purpose of this Subpart B is to publish all delegations of authority of staff members which do not appear in other Board regulations.

§ 800.22 Delegation to the Managing Director.

(a) The Board hereby delegates to the Managing Director the authority to:

(1) Make the final determination as to whether to withhold a Board record from inspection or copying, pursuant to Part 801 of this chapter.

(2) Approve for publication in the **FEDERAL REGISTER** notices concerning issuance of accident reports and safety recommendations and responses to safety recommendations, as required by sections 304(a)(2) and 307 of the Independent Safety Board Act of 1974 (49 U.S.C. 1903(a)(2) and 1906).

(b) The Chairman delegates to the Managing Director the authority to exercise and carry out, subject to the direction and supervision of the Chairman, the following functions vested in the Chairman:

(1) The appointment and supervision of personnel employed by the Board;

(2) The distribution of business among such personnel and among organizational components of the Board; and

(3) The use and expenditure of funds.

§ 800.23 Delegation to the administrative law judges, Office of Administrative Law Judges.

The Board hereby delegates to the administrative law judges the authority generally detailed in procedural regulation, Part 821, of this chapter.

§ 800.24 Delegation to the General Counsel.

The Board hereby delegates to the General Counsel the authority to:

(a) Approve, disapprove, or request further information concerning requests for testimony of Board employees with respect to their participation in the investigation of accidents, and, upon receipt of notice that an employee has been subpoenaed, to make arrangements with the court either to have the employee excused from testifying or to give the employee permission to testify in accordance with the provisions of Part 835 of this chapter.

(b) Approve or disapprove in safety enforcement proceedings, for good cause shown, requests for changes in procedural requirements subsequent to the initial decision, grant or deny requests to file additional briefs pursuant to § 821.48 of this chapter, and raise on appeal any issue the resolution of which he deems important to the proper disposition of proceedings under § 821.49 of this chapter.

(c) Approve or disapprove, for good cause shown, requests to extend the time for filing comments on proposed new or amended regulations.

(d) Issue regulations for the purpose of making editorial changes or corrections in the Board's rules and regulations.

(e) Issue orders staying, pending judicial review, orders of the Board suspending or revoking certificates, and consent to the entry of judicial stays with respect to such orders.

(f) Compromise civil penalties in the case of violations arising under Title VII of the Federal Aviation Act of 1958, or any rule, regulation, or order issued thereunder.

(g) Issue orders dismissing appeals from initial decisions of Board administrative law judges pursuant to the request of the appellant.

(h) Correct Board orders by eliminating typographical, grammatical, and similar errors, and make editorial changes therein not involving matters of substance.

§ 800.25 Delegation to the Director, Bureau of Accident Investigation.

The Board hereby delegates to the Director, Bureau of Accident Investigation, the authority to:

(a) Order an investigation into the facts, conditions, and circumstances of transportation accidents which the Board has authority to investigate.

(b) Disclose factual information pertinent to all accidents or incidents as provided for in Part 801 of this chapter.

(c) Determine the probable cause(s) of accidents in which the determination is issued in the "Brief of Accident" format, except that the Bureau Director will submit the findings of the accident investigation to the Board for determination of the probable cause(s) when (a) any Board Member so requests, or (b) it appears to the Bureau Director that, because of significant public interest, a policy issue, or a safety issue or other matter, the determination of the probable cause(s) should be made by the Board. Provided, that a petition for reconsideration or modification of a determination of the probable cause(s) made

under § 845.41 of the Board's regulations (49 CFR 845.41) shall be acted on by the Board.

§ 800.26 Delegation to the Director, Bureau of Administration.

The Board hereby delegates to the Director, Bureau of Administration, the authority to:

(a) Determine initially the withholding of a Board record from inspection or copying, pursuant to Part 801 of this chapter.

(b) Settle claims for money damages of \$2,500 or less against the United States arising under section 2672 of 28 United States Code (the Federal Tort Claims Act) because of acts or omissions of Board employees.

§ 800.27 Delegation to investigative officers and employees of the Board.

The Board hereby delegates to any officer or employee of the Board who is designated by the Chairman of the Safety Board the authority to sign and issue subpoenas, and administer oaths and affirmations, and to take depositions or cause them to be taken in connection with the investigation of transportation accidents.

§ 800.28 Delegation to Director, Bureau of Field Operations.

The Board hereby delegates to the Director, Bureau of Field Operations, the authority to:

(a) Order an investigation into the facts, conditions, and circumstances of transportation accidents which the Board has authority to investigate.

(b) Disclose factual information pertinent to all accidents or incidents as provided for in Part 801 of this chapter.

(c) Determine the probable cause(s) of accidents in which the determination is issued in the "Brief of Accident" format, except that the Bureau Director will submit the findings of the accident investigation to the Board for determination of the probable cause(s) when (a) any Board Member so requests, or (b) it appears to the Bureau Director that, because of significant public interest, a policy issue, or a safety issue or other matter, the determination of the probable cause(s) should be made by the Board.

Provided, that a petition for reconsideration or modification of a determination of the probable cause(s) made under § 845.41 of the Board's regulations (49 CFR 845.41) shall be acted on by the Board.

APPENDIX—REQUEST TO THE SECRETARY OF THE DEPARTMENT OF TRANSPORTATION TO INVESTIGATE CERTAIN AIRCRAFT ACCIDENTS

(a) Acting pursuant to the authority vested in it by Title VII of the Federal Aviation Act of 1958 (49 U.S.C. 1441) and section 304(a)(1) of the Independent Safety Board Act of 1974, the National Transportation Safety Board (Board) hereby requests the Secretary of the Department of Transportation (Secretary) to exercise his authority subject to the terms, conditions, and limitations of Title VII and section 304(a)(1) of the Independent Safety Board Act of 1974, and as set forth below to investigate the facts, conditions, and circumstances surrounding certain fixed-wing and rotorcraft aircraft accidents and to submit a report to the Board from which the Board may make a determination of the probable cause.

(b) The authority to be exercised hereunder shall include the investigation of all civil aircraft accidents involving rotorcraft, serial application, amateur-built aircraft, restricted category aircraft, and all fixed-wing aircraft which have a certificated maximum gross takeoff weight of 12,500 pounds or less except:

(1) Accidents in which fatal injuries have occurred to an occupant of such aircraft, but shall include accidents involving fatalities incurred as a result of aerial application operations, amateur-built aircraft operations, or restricted category aircraft operations.

(2) Accidents involving aircraft operated in accordance with the provisions of Part 135 of the Federal Air Regulations entitled "Air Taxi Operators and Commercial Operators of Small Aircraft."

(3) Accidents involving aircraft operated by an air carrier authorized by certificate of public convenience and necessity to engage in air transportation.

(4) Accidents involving midair collisions.

(c) *Provided*, That the Board may, through the chiefs of its field offices, or their designees who receive the initial notifications, advise the Secretary, through his appropriate designee, that the Board will assume the full responsibility for the investigation of an accident included in this request in the same manner as an accident not so included; and *Provided further*, That the Board, through the chiefs of its field offices, or their designees who receive initial notifi-

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cations may request the Secretary, through his appropriate designee, to investigate an accident not included in this request, which would normally be investigated by the Board under section (b) (1) through (4) above, and in the same manner as an accident so included.

(d) *Provided*, That this authority shall not be construed to authorize the Secretary to hold public hearings or to determine the probable cause of the accident; and *Provided further*, That the Secretary will report to the Board in a form acceptable to the Board the facts, conditions, and circumstances surrounding each accident from which the Board may determine the probable cause.

(e) *And provided further*, That this request includes authority to conduct autopsies and such other tests of the remains of deceased persons aboard the aircraft at the time of the accident, who die as a result of the accident, necessary to the investigations requested hereunder and such authority may be delegated and redelegated to any official or employee of the Federal Aviation Administration (FAA). For the purpose of this provision, designated aviation examiners are not deemed to be officials or employees of the FAA.

(f) Invoking the provisions of section 701(f) of the Federal Aviation Act of 1958, and section 304(a)(1) of the Independent Safety Board Act of 1974, is necessary inasmuch as sufficient funds have not been made available to the Board to provide adequate facilities and personnel to investigate all accidents involving civil aircraft. This request, therefore, is considered to be temporary in nature and may be modified or terminated by written notice to the Secretary.

PART 801—PUBLIC AVAILABILITY OF INFORMATION

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- 801.57 Records for regulation of financial institutions.
- 801.58 Geological records.
- 801.59 Trade secrets and commercial or financial information.

APPENDIX—FEE SCHEDULE

AUTHORITY: Freedom of Information Act, Pub. L. 93-502, amending 5 U.S.C. 552; Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2166 (49 U.S.C. 1901 et seq.), 31 U.S.C. 483a, and 18 U.S.C. 641 and 2071(a), unless otherwise noted.

SOURCE: 41 FR 39755, Sept. 16, 1976, unless otherwise noted.

Subpart A—Applicability and Policy

§ 801.1 Applicability.

(a) This part implements the provisions of the Freedom of Information

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Act (5 U.S.C. 552) as amended by Pub. L. 93-502, November 21, 1974, and the publication and public access requirements embodied in title III of the Independent Safety Board Act of 1974 (88 Stat. 2166 (49 U.S.C. 1901 et seq.)). In addition, it provides for document services and the charges therefor, pursuant to 31 U.S.C. 483a.

(b) This part applies only to records existing when the request for the information is made. The National Transportation Safety Board (Board) is not required to compile or procure records for the sole purpose of making them available hereunder.

(c) Subpart F of this part describes records which are exempt from public disclosure.

§ 801.2 Policy.

In implementing 5 U.S.C. 552, it is the policy of the Board to make information available to the public to the greatest extent possible. Accordingly, all records of the Board, except those that the Board specifically determines must not be disclosed in the national interest, or for the protection of private rights, or for the efficient conduct of public business to the extent permitted by the Freedom of Information Act, are declared to be available for public inspection and copying, as provided in this part. Records are to be made available to the public promptly and to the fullest extent consistent with this policy. No record may be withheld from the public solely because its release might indicate administrative error or embarrass an officer or employee of the Board.

§ 801.3 Definitions.

"Record" includes any writing, drawing, map, recording, tape, film, photo, or other documentary material by which information is preserved, and this definition also applies to section 306(a) of the Independent Safety Board Act of 1974, which requires public access to any information. In this part, "document" and "record" shall have the same meaning.

"Chairman" means the Chairman of the Board.

"Managing Director" means the Managing Director of the Board.

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Subpart B—Administration

§ 801.10 General.

(a) The Director, Bureau of Administration, is responsible for the custody and control of all Board records required to be preserved under directives of the General Services Administration, issued pursuant to 44 U.S.C. 3102.

(b) The Director, Bureau of Administration, shall be solely responsible for the initial determination of whether to release records within the 10 working days' limit, or the extension specified in the Freedom of Information Act.

(c) The Public Inquiries Section, Bureau of Administration, shall:

(1) Maintain for public access and commercial reproduction all accident files containing aviation and surface investigator's reports, factual accident reports or group chairman reports, documentation and accident correspondence files, transcripts of public hearings, if any, and exhibits.

(2) Maintain a public reference room (with self-service duplicator) and, on request, permit the public to inspect public documents during normal working hours.

(3) Maintain copies of public documents, specified in the Appendix, for inspection and copying in the public reference room.

(d) Requests for documents must be addressed to the Public Inquiries Section, National Transportation Safety Board, Washington, D.C. 20594. All requests must reasonably identify the record requested, must be accompanied by the fee or agreement (if any) to pay the reproduction costs shown in the fee schedule (see Appendix), and must contain the address and telephone number of the person making the request. The envelope in which the request is sent should be marked prominently with the letters "FOIA." The Bureau of Administration, if there is a failure to comply fully, will attempt to contact the requester immediately to rectify the omission. However, the 10-working-day limit for processing shall not commence until the Bureau of Administration receives a totally correct request.

(e) The field offices of the Board shall not maintain, for public access, records maintained by the Bureau of Administration. If requests are made to field offices, advice will be promptly given as to how to make such requests.

(f) The Bureau of Administration shall maintain a contract with a commercial reproduction firm to accommodate requests for reproduction of accident records. The reproduction charges may be subject to change with each contract renewal.

(g) Requests for documents generated by other agencies or entities will not be processed unless they are contained in the Board's accident files.

(h) Requests for records not yet issued will be held in abeyance until issuance and then processed. The person making the request will be so notified.

(i) No charge will be made by the Board for notices, decisions, orders, etc., required by law to be served on a party to any proceeding or matter before the Board.

(j) Upon approval of the Director, Bureau of Administration, subscriptions to Board publications may be entered without charge for States, organizations, or other entities specified in the fee schedule set forth in the Appendix.

§ 801.11 Segregability of records.

The initial decision of the Director, Bureau of Administration shall include a determination of segregability. If it is reasonable to do so, the exempt portions will be deleted and the non-exempt portions will be sent to the requester.

§ 801.12 Protection of records.

(a) No person may, without permission, remove from the place where it is made available any record made available to him for inspection or copying. Stealing, altering, mutilating, obliterating, or destroying, in whole or in part, such a record shall be deemed a crime.

(b) Section 641 of title 18 of the U.S.C. provides, in pertinent part, as follows:

"Whoever . . . steals, purloins, or knowingly converts to his use or the use of another, or without authority, sells, conveys or

disposes of any record . . . or thing of value of the United States or of any department or agency thereof . . . Shall be fined not more than \$10,000 or imprisoned not more than ten years or both; but if the value of such property does not exceed the sum of \$100, he shall be fined not more than \$1,000 or imprisoned not more than one year, or both. . . ."

(c) Section 2071(a) of title 18 of the U.S.C. provides, in pertinent part, as follows:

"(a) Whoever willfully and unlawfully conceals, removes, mutilates, obliterates, or destroys, or attempts to do so, or, with intent to do so takes and carries away any record, proceeding, map, book, paper, document, or other things, filed or deposited . . . in any public office, or with any . . . public officer of the United States, shall be fined not more than \$2,000 or imprisoned not more than three years, or both."

§ 801.13 Production of records on demand of courts or other authorities.

(a) No Board employee or Member, other than the Managing Director or the General Counsel, may respond to a demand of a court or other authority for the production of any Board records.

(b) Whenever an employee or Board Member is served with a court order or other record order, or subpoena duces tecum, he shall immediately advise the General Counsel's office, and the General Counsel shall determine the course of action to be taken.

(c) Subpoenas and requests for oral testimony will be processed pursuant to Part 835 of this chapter.

Subpart C—Time Limits

§ 801.30 Initial determination.

An initial determination as to whether to release a record shall be made by the Director, Bureau of Administration within 10 working days (excluding Saturdays, Sundays, and legal public holidays) after the request is received, except that this time limit may be extended up to 10 additional working days in accordance with § 801.22, of this part. The person making the request will be notified immediately in writing of such determination. If such determination is to release the requested record, such record

shall be made available promptly. If such determination is made not to release the record, the person making the request shall, when he is notified of such determination, be advised of (a) the reason for the determination, (b) the right to appeal the determination, and (c) the name and title or positions of each person responsible for the denial of the request.

§ 801.21 Final determination.

A determination with respect to any appeal made pursuant to § 801.20, shall be made by the Managing Director within 10 working days (excluding Saturdays, Sundays, and legal public holidays) after receipt of such appeal, except that this time limit may be extended for as many as 10 additional working days, in accordance with § 801.22.

§ 801.22 Extension.

In unusual circumstances as specified in this section, the time limits prescribed in either, but not both, § 801.20 or § 801.21, may be extended by written notice to the person making a request and setting forth the reasons for such extension and the date on which a determination is expected to be dispatched. Such notice shall not specify a date that would result in an extension for more than 10 working days. As used in this paragraph, "unusual circumstances," to the extent reasonably necessary to the proper processing of the particular request, means—

(a) The need to search for and collect the requested records from field facilities or other establishments that are separate from the Bureau of Administration;

(b) The need to search for, collect, and appropriately examine a voluminous amount of separate and distinct records which are demanded in a single request; or

(c) The need to consult with another agency which has a substantial interest in the disposition of the request or with two or more components of the agency having substantial subject-matter interest therein.

Subpart D—Accident Investigation Records

§ 801.30 Field aircraft accident investigations.

Upon completion of the field investigation (normally 60 days after the accident), the Board's investigator-in-charge shall complete a factual report (with documentation) and send it to the Director, Bureau of Administration, who shall then make the record available to the public for inspection or commercial copy order (see Appendix).

§ 801.31 Major aircraft accident investigations.

Upon completion of the investigation by a team of Board investigators (normally 60 days after the accident), the report of each investigator (group chairman), with documentation, shall be sent to the Director, Bureau of Administration, who shall make these records available to the public for inspection and commercial copy order (see Appendix).

§ 801.32 Aircraft accident public hearings.

Within approximately 2 weeks after a public hearing concerning an aviation accident, the Director, Bureau of Administration, shall make available to the public for inspection or commercial copy order, the hearing transcript and the exhibits introduced at the hearing (see Appendix).

§ 801.33 Surface transportation accident investigations.

Upon completion of the Board's investigation of these accidents (normally 60 days after the accident), the investigators shall send to the Director, Bureau of Administration, a file of the documentation obtained. This file shall then be made available by the Bureau of Administration, for public access or commercial copy order (see Appendix).

§ 801.34 Surface accident public hearings.

Within approximately 2 weeks after a surface accident public hearing, the Bureau of Administration shall make available for public inspection and

commercial copy order, the hearing transcript and exhibits introduced at the hearing.

§ 801.35 Aviation accident reports.

(a) The Board shall report the facts, conditions, and circumstances, and its determination of the cause or probable cause of all U.S. civil aviation accidents approximately 6 months after each accident occurs. All such reports shall be provided by computer print-out, published periodically as "Briefs of Accidents."

(b) All major or catastrophic air carrier accidents and noncatastrophic accidents, involving both air carriers and general aviation, which provide unusually significant safety issues shall be reported by the Board in detailed, narrative format. The formal, narrative report shall provide the facts, conditions, and circumstances, and the Board's determination of the cause or probable cause of the accident; the report shall be issued approximately 6 months after date of accident.

(c) After notice of issuance appears in the **FEDERAL REGISTER**, as required by section 304(a)(2) of the Independent Safety Board Act of 1974, the report shall be made available for public inspection in the Board's public reference room. (See Appendix for copies and subscriptions.)

§ 801.36 Surface transportation accident reports.

Any surface transportation accident investigated by the Board, and certain marine accidents investigated by the U.S. Coast Guard, shall result in a formal Board report. Such report shall provide the facts, conditions, circumstances, and the Board's determination of cause or probable cause of the accident. Reports of accidents investigated by the Board shall be issued approximately 6 months after the date of accident. After notice of issuance appears in the **FEDERAL REGISTER**, as required by section 304 (a)(2) of the Independent Safety Board Act of 1974, the report shall be made available for public inspection in the Board's public reference room. (See Appendix for copies and subscriptions.)

Subpart E—Other Board Documents**§ 801.40 The Board's rules.**

The Board's rules are published in the Code of Federal Regulations as Parts 800 through 899 of this Title 49. Reprints of each part are maintained by the Bureau of Administration and are available on request without cost.

§ 801.41 Transportation safety recommendations.

All transportation safety recommendations issued by the Board, and responses thereto, shall be noticed in the **FEDERAL REGISTER** as required by section 307 of the Independent Safety Board Act of 1974, and thereafter shall be made available for inspection or copying in the Board's public reference room. (See Appendix for copies and subscriptions.)

§ 801.42 Indexes to aviation and maritime enforcement cases.

(a) Pursuant to the Freedom of Information Act, as amended, a quarterly index to the initial decisions of the Board's administrative law judges shall be made available for inspection or copying in the Board's public reference room. (See Appendix for subscription to initial decisions.)

(b) Pursuant to the Freedom of Information Act, as amended, a quarterly index to the Board's opinions and orders in aviation and maritime safety enforcement cases shall be made available for inspection or copying in the Board's public reference room. (See Appendix for subscription to opinions and orders and availability of bound National Transportation Safety Board Decisions.)

§ 801.43 Administrative staff manuals and instructions and indexes that affect the public.

The index to staff manuals which are not exempt from public disclosure, as set forth in Subpart F, shall be available in the Board's public reference room (see Appendix).

§ 801.44 Reports to Congress.

The Board's annual report to Congress, which is required under section 305 of the Independent Safety Board

Act of 1974, shall be submitted on July 1 of each year. It may be purchased from the Government Printing Office or inspected in the Board's public reference room. All other reports or comments to Congress shall be available in the Board's public reference room for inspection or by ordering a copy after issuance.

§ 801.45 Other records.

The working files of the Board contain a limited number of records which may not be exempt, in whole or in part, from public disclosure as set forth in Subpart F of this part. Such records shall be made available upon request. Requests for such documents should be made directly to the head of the unit concerned, as set forth in § 801.10(j), and should contain a reasonable description of the specific record desired.

§ 801.46 Special document services.

(a) Although not required by the Freedom of Information Act, the Board provides document services at charges required by 31 U.S.C. 483a, as described in the Appendix.

Subpart F—Exemption From Public Disclosure

§ 801.50 General.

This subpart implements section 552 (b) of title 5, United States Code. Section 552 (a) and (b) exempt certain records from public inspection. The Board will, however, release a record authorized to be withheld under section 552(b) unless it determines that the release of that record would be inconsistent with the purpose of the exemption concerned. Examples of records given in §§ 801.51 through 801.58 included within a particular statutory exemption are not necessarily illustrative of all types of records covered by the exemption.

§ 801.51 National defense and foreign policy secrets.

National defense and foreign policy secrets established by Executive Order, and properly classified, are exempt from public disclosure. Requests to the Board for such records

will be transferred to the source agency as appropriate. (Executive Orders 11652, March 8, 1972; 10865, February 20, 1960; and 10104, February 1, 1950.)

§ 801.52 Internal personnel rules and practices of the Board.

(a) Records relating solely to internal personnel rules and practices that are within the statutory exemptions include memoranda pertaining to personnel matters such as staffing policies, and procedures for the hiring, training, promotion, demotion, or discharge of employees, and management plans, records, or proposals relating to labor-management relations.

(b) The purpose of this section is to protect any records relating to internal personnel rules and practices dealing with the relations between Board management and employees.

§ 801.53 Records exempt by statute from disclosure.

This exemption applies to records specifically exempted from disclosure by statute (other than 5 U.S.C. 552b): *Provided*, That such statute (a) requires that the matters be withheld from the public in such manner as to leave no discretion on the issue, or (b) establishes particular criteria for withholding or refers to particular types of matters to be withheld.

(5 U.S.C. 552b)

[42 FR 13284, Mar. 10, 1977]

§ 801.54 Interagency and intra-agency exchanges.

(a) Any record prepared by a Board employee for internal Government use is within the statutory exemption to the extent that it contains—

(1) Opinions made in the course of developing official action by the Board but not actually made a part of that official action, or

(2) Information concerning any pending Board proceeding, or similar matter, including any claim or other dispute to be resolved before a court of law, administrative board, hearing officer, or contracting officer.

(b) The purpose of this section is to protect the full and frank exchange of ideas, views, and opinions necessary

for the effective functioning of the Government. These resources must be fully and readily available to those officials upon whom the responsibility rests to take official Board action. Its purpose is also to protect against the premature disclosure of material that is in the developmental stage, if premature disclosure would be detrimental to the authorized and appropriate purposes for which the material is being used, or if, because of its tentative nature, the material is likely to be revised or modified before it is officially presented to the public.

(c) Examples of materials covered by this section include staff papers containing advice, opinions, or suggestions preliminary to a decision or action; advance information on such things as proposed plans to procure, lease, or otherwise hire and dispose of materials, real estate, or facilities; documents exchanged preparatory to anticipated legal proceedings; material intended for public release at a specified future time, if premature disclosure would be detrimental to orderly processes of the Board; records of inspections, investigations, and surveys pertaining to internal management of the Board; and matters that would not be routinely disclosed in litigation but which are likely to be the subject of litigation.

§ 801.55 Unwarranted invasion of personal privacy.

Any personal, medical, or similar file is within the statutory exemption if its disclosure would harm the individual concerned or would be a clearly unwarranted invasion of his personal privacy. This also applies to financial statements furnished by Board Members and employees and to commercial or financial information customarily subjected to an attorney-client or similar privilege.

§ 801.56 Records compiled for law enforcement purposes.

This exemption from public disclosure applies to records compiled for law enforcement, but only to the extent that disclosure would interfere with enforcement, would be an unwarranted invasion of privacy, would disclose the identity of a confidential source, would disclose investigative

procedures and practices, or would endanger the life or security of law enforcement personnel.

§ 801.57 Records for regulation of financial institutions.

Records compiled for agencies regulating or supervising financial institutions are exempt from public disclosure.

§ 801.58 Geological records.

Records concerning geological wells are exempt from public disclosure.

§ 801.59 Trade secrets and commercial or financial information.

Trade secrets and commercial or financial information obtained from a person and privileged or confidential are exempt from public disclosure.

[42 FR 13284, Mar. 10, 1977]

APPENDIX—FEE SCHEDULE

1. Fees (pursuant to 31 U.S.C. 483a). Upon request, services relating to public documents are available at the following fees:

A. Publications

(1) The response to public requests for the following NTSB publications are handled by the National Technical Information Service (NTIS). The following publications are available through single copies or annual subscriptions and may be purchased in paper copy or 96 page per film microfiche (fees are subject to change by NTIS):

	Single copies	Calendar year subscription	Microfiche
PB84-910400 Aircraft Accident Reports	\$5.00	\$55.00	(1)
PB84-916200 Highway Accident Reports	(1)	50.00	(1)
PB84-915300 Railroad Accident Reports	(1)	55.00	(1)
PB84-916400 Marine Accident Reports	(1)	60.00	(1)
PB84-916500 Pipeline Accident Reports	(1)	45.00	(1)
PB84-916900 Aviation Accident Briefs	(1)	160.00	(1)
PB84-917100 Highway Accident Briefs	12.50	(2)	(1)
PB84-917200 Railroad Accident Briefs	12.50	(2)	(1)
PB84-917300 Marine Accident Briefs	10.00	(2)	(1)
PB84-917400 Pipeline Accident Briefs	10.00	(2)	(1)

	Single copies	Calendar year subscription	Microfiche
PB84-916800 Transportation Safety Recommendations	(¹)	55.00	(¹)
PB84-916700 Transportation Initial Decisions and Orders and Board Opinions & Orders	(¹)	200.00	(¹)
PB84-917000 Transportation Special Reports ²	(¹)	50.00	(¹)

¹ Variable prices based on number of pages, contact NTIS for price quote.

² Highway, Railroad, Marine and Pipeline brief subscriptions are available by standing order only and require an NTIS deposit account (they are issued at irregular intervals, and charges at single copy rates will be made only as reports are distributed).

³ Transportation Special Reports (this category includes all forms of Safety Studies (formerly Used Special Studies, and Safety Effectiveness Evaluations), Special Investigation Reports, and Railroad/Highway Accident Reports).

(2) Send publication orders for the above documents to the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, identifying each subscription by the NTSB Report Number or the NTIS accession number. Telephone (703) 487-4630 (annual subscriptions) or (703) 487-4650 (single copies or microfiche). The NTSB Report Number and the NTIS accession number can be obtained from the NTSB Public Inquiries Section.

B. Access to transportation accident files (all modes). All files dated prior to January 1, 1978, are in hard copy form and are maintained in the Federal Records Center. Files dated January 1, 1978, to present are maintained in microfiche at the NTSB headquarters. All documents in the Board's public files may be examined, without charge, in the Board's public reference room, located in the Public Inquiries Section, Room 805F, 900 Independence Avenue, SW., Washington, D.C., telephone (202) 382-8735. A self-service duplicator in the reference room is available for use by the public at a nominal cost. Usually, two weeks' time is required to service a request for reproduction. Filing any request for reproduction of a file that must be retrieved from the Federal Records Center will require two additional weeks.

(1) Availability of accident files. All transportation mode accident files are retained in accordance with the following schedule:

a. Air carrier accident files and all public hearing files are retained for a period of fifteen (15) years and then destroyed.

b. All other transportation accident files are retained for a period of seven (7) years and then destroyed.

(2) Reproduction of accident files. Reproduction of accident files (statements, photographs, hearing transcripts, and other material contained in the Board's accident investigation files) is provided by commercial

contractor. Reproduction of printed matter and photographs are made from the best copy available. Requests must be forwarded to the Public Inquiries Section, National Transportation Safety Board, Washington, D.C. 20594. The contractor may bill and/or require full payment before duplicating the requested documents. Fees are subject to change depending upon the terms of the Board's annual contract.

Current fees are:

- a. Microfiche Duplicate, \$1.65
- b. Microfiche Blowback, .11
- c. Aperture Card Blowback, 1.40
- d. Photographs (from aperture card):
 - 8"x10" B&W Glossy Print, 1.65
 - 8"x10" Color Prints, 2.75
 - 5"x7" Color Prints, 2.47
 - 3 1/2"x5" Color Prints, 2.47
- e. Hardcopy Reproduction:
 - 8 1/2"x11" .14
 - 8 1/2"x14" .10
 - 10"x14" .05
- Overlaid Pages (Larger than 10"x14"), .03/sq. in.
- f. Photographs (from prints):
 - 8"x10" B&W Glossy Prints, 1.65
 - 8"x10" Color Prints, 2.75
 - 5"x7" Color Prints, 2.47
 - 3 1/2"x5" Color Prints, 2.47
 - 2"x2" Color Slides, 2.47
- g. Minimum Order Complete File, 1.00
- h. Preliminary Report (only), 1.35
- i. Probable Cause (only), 1.35

C. Request for other Board information. Requests for any other Board information such as files on safety recommendations, safety studies, Board orders, Board opinions and orders, and initial decisions are available at a cost of 14 cents per page(s) (\$1.00 minimum charge). These services are provided by a public contractor who may prebill or require full payment before duplicating the requested documents. Requests must be forwarded to the Public Inquiries Section, National Transportation Safety Board, Washington, D.C. 20594.

D. Reproduction services through the commercial contractor are handled as follows:

Step 1: Requestor places written or telephone order with the Board's Public Inquiries Section for desired documents.

Step 2: The Public Inquiries Section identifies the documents and forwards the request to the contractor.

Step 3: The contractor provides the requestor with an invoice showing the actual costs for the service requested plus postage.

Step 4: Requestor returns a copy of the contractor's invoice with full payment enclosed. Requestor has the option of opening a charge account with the contractor, and contractor will accept major credit cards.

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(Contractor must respond to request within five working days after receipt of payment.)

Step 5: Contractor reproduces documents and mails them directly to the requestor.

E. Expedited service. A \$2.25 surcharge will be made for expedited service which will be provided within 2 working days commencing when the contractor receives advance payment or other arrangements have been made with the contractor.

F. A fee of \$4.00 will be charged for certification of documents under the Board's seal.

G. Computer tapes and services for aviation accidents. The duplication of computer tapes (or a portion thereof) will be made on requestor supplied magnetic tape for a fee of \$40.00. The requestor must provide a 2,400-foot magnetic tape certified to at least 1,600 bits per inch. Computer tape requests should be addressed to the Public Inquiries Section, National Transportation Safety Board, Washington, D.C. 20594.

H. The basic fees set forth provide for ordinary first-class postage prepaid. If registered, certified, air, or special delivery mail is requested, postal fees therefor will be added to the basic fee. Also, if special handling or packaging is required, the cost will be added to the basic fee.

2. Services available free of charge.

A. The following documents are available without commercial reproduction cost until limited supplies are exhausted:

- (1) Press releases.
- (2) Safety Board regulations (Chapter VIII of Title 49, Code of Federal Regulations).
- (3) Indexes to initial decisions, Board orders, opinion and orders, and staff manuals and instructions.
- (4) Safety recommendations, and
- (5) NTSB Annual Report.

B. NTSB News Digest. The News Digest describes NTSB activities and summarizes certain publications. The News Digest is free, and anyone who is interested in being added to this mailing list should contact the Public Inquiries Section, National Transportation Safety Board, Washington, D.C. 20594.

3. Documents search fee—The Board has determined that it is in the public interest to eliminate fees for the first hour of search time. For all time expended in locating documents beyond the initial hour, the fee is \$5.00 per hour.

4. Publication, reproduction, and search fees are waived for qualifying foreign countries, international organizations, nonprofit public safety entities, State and Federal transportation agencies, and colleges and universities, after approval by the Director, Bureau of Administration. In addition, fees may be waived or reduced for other requestors not in any of the foregoing categories,

when it is determined by the Director, Bureau of Administration that a waiver is appropriate and would contribute to the Board's programs.

(5 U.S.C. 552, 31 U.S.C. 483a, and 49 U.S.C. 1901 et seq.)

[49 FR 4496, Feb. 7, 1984]

PART 802—RULES IMPLEMENTING THE PRIVACY ACT OF 1974

Subpart A—Applicability and Policy

Sec.

- 802.1 Purpose and scope.
- 802.2 Definitions.

Subpart B—Initial Procedures and Requirements

- 802.5 Procedures for requests pertaining to individual records in a record system.
- 802.6 Types of requests and specification of records.
- 802.7 Requests: how, where, and when presented; verification of identity of individuals making requests; accompanying persons; and procedures for acknowledgment of requests.

Subpart C—Initial Determinations

- 802.8 Disclosure of requested information.

Subpart D—Correction or Amending the Record

- 802.10 Request for correction or amendment to record.
- 802.11 Agency review of requests for correction or amendment of record.
- 802.12 Initial adverse agency determination on correction or amendment.

Subpart E—Review of Initial Adverse Determination

- 802.14 Review procedure and judicial review.

Subpart F—Fees

- 802.15 Fees.

Subpart G—Penalties

- 802.18 Penalties.

Subpart H—Specific Exemptions

- 802.20 Security records.

AUTHORITY: Privacy Act of 1974, Pub. L. 93-579, 88 Stat. 1896 (5 U.S.C. 552a); Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2166 (49 U.S.C. 1901 et seq.); and Freedom of Information Act, Pub. L.

93-502, November 21, 1974, amending 5 U.S.C. 552.

Source: 41 FR 22358, June 3, 1976, unless otherwise noted.

Subpart A—Applicability and Policy

§ 802.1 Purpose and scope.

The purpose of this part is to implement the provisions of 5 U.S.C. 552a with respect to the availability to an individual of records of the National Transportation Safety Board (NTSB) maintained on individuals. NTSB policy encompasses the safeguarding of individual privacy from any misuse of Federal records and the provision of access to individuals to NTSB records concerning them, except where such access is in conflict with the Freedom of Information Act, or other statute.

[41 FR 39758, Sept. 16, 1976]

§ 802.2 Definitions.

In this part:

"Board" means the five Members of the National Transportation Safety Board, or a quorum thereof;

"Individual" means a citizen of the United States or an alien lawfully admitted for permanent residence;

"National Transportation Safety Board (NTSB)" means the agency set up under the Independent Safety Board Act of 1974;

"Record" means any item, collection, or grouping of information about an individual that is maintained under the control of the NTSB pursuant to Federal law or in connection with the transaction of public business, including, but not limited to, education, financial transactions, medical history, and criminal or employment history, and that contains a name, or an identifying number, symbol, or other identifying particular assigned to an individual, such as a finger or voice imprint or photograph;

"Routine use" means the use of such record for a purpose compatible with the purpose for which it was collected, including, but not limited to, referral to law enforcement agencies of violations of the law and for discovery purposes ordered by a court referral to potential employers, and for security clearance;

"Statistical record" means a record in a system of records maintained for statistical research or reporting purposes only and which is not used wholly or partially in any determination concerning an identifiable individual;

"System Manager" means the agency official who is responsible for the policies and practices of his particular system or systems of record, as specified in the NTSB notices of systems or records; and

"System of records" means a group of any records under the control of the NTSB from which information is retrieved by the name of an individual or by some identifying number, symbol, or other identifying particular assigned to the individual, whether presently in existence or set up in the future.

Subpart B—Initial Procedures and Requirements

§ 802.5 Procedures for requests pertaining to individual records in a record system.

The NTSB may not disclose any record to any person or other agency, except pursuant to a written request by, or with the prior written consent of, the individual to whom the record pertains, provided the record under the control of the NTSB is maintained in a system of records from which information is retrieved by the name of the individual or by some identifying number, symbol, or other particular assigned to such individual. Written consent is not required if the disclosure is:

(a) To officers or employees of the NTSB who require the information in the official performance of their duties;

(b) Required under 5 U.S.C. 552, Freedom of Information Act;

(c) For a routine use compatible with the purpose for which it was collected;

(d) To the Bureau of the Census for uses pursuant to title 13, U.S.C.;

(e) To a recipient who has provided the NTSB with advance adequate assurance that the record will be used solely as a statistical research or re-

porting record and that it is to be transferred in a form not individually identifiable; or

(f) Pursuant to the order of a court of competent jurisdiction.

§ 802.6 Types of requests and specification of records.

(a) *Types of requests.* An individual may make the following request respecting records about himself maintained by NTSB in any system of records subject to the Act:

(1) Whether information concerning himself is contained in any system of records.

(2) Access to a record concerning himself. Such request may include a request to review the record and/or obtain a copy of all or any portion thereof.

(3) Correction or amendment of a record concerning himself.

(4) Accounting of disclosure to any other person or Government agency of any record concerning himself contained in any system of records controlled by NTSB, except: (i) Disclosures made pursuant to the FOIA; (ii) disclosures made within the NTSB; (iii) disclosures made to another Government agency or instrumentality for an authorized law enforcement activity pursuant to subsection (b) (7) of the Act; and (iv) disclosures expressly exempted by NTSB from the requirements of subsection (c)(3) of the Act, pursuant to subsection (k) thereof.

(b) *Specification of records.* All requests for access to records must reasonably describe the system of records and the individual's record within the system of records in sufficient detail to permit identification of the requested record. Specific information regarding the system name, the individual's full name, and other information helpful in identifying the record or records shall be included. Requests for correction or amendment of records shall, in addition, specify the particular record involved, state the nature of the correction or amendment sought, and furnish justification for the correction or amendment.

(c) *Inadequate identification of record.* Requests which do not contain information sufficient to identify the record requested will be returned

promptly to the requester, with a notice indicating what information is lacking. Individuals making requests in person will be informed of any deficiency in the specification of the records at the time the request is made. Individuals making requests in writing will be notified of any such deficiency when their request is acknowledged.

§ 802.7 Requests: how, where, and when presented; verification of identity of individuals making requests; accompanying persons; and procedures for acknowledgment of requests.

(a) *Requests—general.* Requests may be made in person or in writing. Assistance regarding requests or other matters relating to the Act may be obtained by writing to the Director, Bureau of Administration, National Transportation Safety Board, 800 Independence Avenue, SW., Washington, D.C. 20594. The Director, Bureau of Administration, or his designee, on request, will aid an individual in preparing an amendment to the record or to an appeal following denial of a request to amend the record, pursuant to subsection (f)(4) of the Act.

(b) *Written requests.* Written requests shall be made to the Director, Bureau of Administration at the address given above, and shall clearly state on the envelope and on the request itself, "Privacy Act Request," "Privacy Act Statement of Disagreement," "Privacy Act Disclosure Accounting Request," "Appeal from Privacy Act Adverse Determination," or "Privacy Act Correction Request," as the case may be. Actual receipt by the Director, Bureau of Administration, or his designee, shall constitute receipt.

(c) *Requests made in person.* Requests may be made in person during official working hours of the NTSB at the office where the record is located, as listed in the "Notice of Systems of Records" for the system in which the record is contained.

(d) *Verification of identity of requester.* (1) For written requests, the requester's identity must be verified before the release of any record, unless exempted under the FOIA. This may be accomplished by ade-

quate proof of identity in the form of a driver's license or other acceptable item of the same type.

(2) For requests in person, the requester's identity may be established by a single document bearing a photograph (such as a passport or identification badge) or by two items of identification containing name, address, and signature (such as a driver's license or credit card).

(3) Where a request is made for reproduced records which are to be delivered by mail, the request must include a notarized statement verifying the requester's identity.

(e) *Inability to provide requisite documentation of identity.* A requester who cannot provide the necessary documentation of identity may provide a notarized statement, swearing or affirming his identity and the fact that he is aware of the penalties for false statement imposed pursuant to 18 U.S.C. 1001, and subsection (i)(3) of the Act. Where requested, the Director, Bureau of Administration, or his designee, will assist the requester in formulating the necessary document.

(f) *Accompanying persons.* A requester may wish to have a person of his choice accompany him to review the requested record. Prior to the release of the record, the NTSB will require the requester to furnish the Director, Bureau of Administration or his designee, with a written statement authorizing disclosure of the record in the accompanying person's presence.

(g) *Acknowledgment of requests.* Written requests to verify the existence of, to obtain access to, or to correct or amend records about the requester maintained by NTSB in any system of records subject to the Act, shall be acknowledged in writing by the Director, Bureau of Administration, or his designee, within 3 working days after the date of actual receipt of the request by the Director, Bureau of Administration, or his designee. The acknowledgment shall advise the requester of the need for any additional information to process the request. Wherever practicable, the acknowledgment shall notify the individual whether his request has been granted or denied. When a request is made in person, every effort will be made to

determine immediately whether the request will be granted. If such decision cannot be made, the request will be processed in the same manner as a written request. Records will be made available for immediate inspection whenever possible.

[41 FR 22358, June 3, 1976, as amended at 41 FR 43154, Sept. 30, 1976]

Subpart C—Initial Determinations

§ 802.8 Disclosure of requested information.

(a) The System Manager may initially determine that the request be granted. If so, the individual making the request shall be notified orally, or in writing, and the notice shall include:

(1) A brief description of the information to be made available;

(2) The time and place where the record may be inspected, or alternatively, the procedure for delivery by mail to the requesting party;

(3) The estimated cost for furnishing copies of the record;

(4) The requirements for verification of identity;

(5) The requirements for authorizing discussion of the record in the presence of an accompanying person; and

(6) Any additional requirements needed to grant access to a specific system of records or record.

(b) Within 10 working days after actual receipt of the request by the Director, Bureau of Administration, or his designee, in appropriate cases, the requester will be informed:

(1) That the request does not reasonably describe the system of records or record sought to permit its identification, and shall set forth the additional information needed to clarify the request; or

(2) That the system of records identified does not include a record retrievable by the requester's name or other identifying particulars.

(c) The System Manager shall advise the requester within 10 working days after actual receipt of the request by the Director, Bureau of Administration, or his designee, that the request for access has been denied, and the reason for the denial, or that the de-

termination has been made to grant the request, either in whole or in part, in which case the relevant information will be provided.

[41 FR 22358, June 3, 1976, as amended at 41 FR 43154, Sept. 30, 1976]

Subpart D—Correction or Amending the Record

§ 802.10 Request for correction or amendment to record.

All requests for correcting or amending records shall be made in writing to the Director, Bureau of Administration, National Transportation Safety Board, 800 Independence Avenue, SW., Washington, D.C. 20594, and shall be deemed received upon actual receipt by the Director, Bureau of Administration. The request shall clearly be marked on the envelope and in the letter with the legend that it is a "Privacy Act Correction Request." The request must reasonably set forth the portion of the record which the individual contends is not accurate, relevant, timely, or complete.

[41 FR 22358, June 3, 1976, as amended at 41 FR 43154, Sept. 30, 1976]

§ 802.11 Agency review of requests for correction or amendment of record.

Within 10 working days after actual receipt of the request by the Director, Bureau of Administration, or his designee, to correct or amend the record, the System Manager shall either make the correction in whole or in part, or inform the individual of the refusal to correct or amend the record as requested, and shall present the reasons for any denials.

[41 FR 22358, June 3, 1976, as amended at 41 FR 43154, Sept. 30, 1976]

§ 802.12 Initial adverse agency determination on correction or amendment.

If the System Manager determines that the record should not be corrected or amended in whole or in part, he will forthwith make such finding in writing, after consulting with the General Counsel, or his designee. The requester shall be notified of the refusal to correct or amend the record. The notification shall be in writing, signed

by the System Manager, and shall include—

- (a) The reason for the denial;
- (b) The name and title or position of each person responsible for the denial of the request;
- (c) The appeal procedures for the individual for a review of the denial; and
- (d) Notice that the denial from the System Manager is appealable within 30 days from the receipt thereof by the requester to the Board.

The System Manager is allotted 10 working days (or within such extended period as is provided in the section concerning "unusual circumstances" *in/ra*) to respond to the request for review. If the requester does not receive an answer within such time, the delay shall constitute a denial of the request and shall permit the requester immediately to appeal to the Board, or to a district court.

Subpart E—Review of Initial Adverse Determination

§ 802.14 Review procedure and judicial review.

(a) A requester may appeal from any adverse determination within 30 days after actual receipt of a denial from the System Manager. The appeal must be in writing addressed to the Chairman, National Transportation Safety Board, 800 Independence Avenue, SW., Washington, D.C. 20594, and shall contain a statement on the envelope and in the appeal: "Appeal from Privacy Act Adverse Determination."

(b) The Board shall make a determination with respect to the appeal within 30 working days after the actual receipt of the appeal by the Chairman, except as provided for in "unusual circumstances" *infra*.

(c) (1) *Review of denial of access.* If the appeal upholds the denial of access to records, the Board shall: Notify the requester in writing, explaining the Board's determination; state that the denial is a final agency action and that judicial review is available in a district court of the United States in the district where the requester resides or has his principal place of business, or where the agency

records are located, or in the District of Columbia; and request a filing with the Board of a concise statement enumerating the reasons for the requester's disagreement with the denial, pursuant to subsection (g) of the Act.

(2) *Review of denial of correction or amendment.* If the appeal upholds the denial in whole or in part for correction or amendment of the record, the same notification and judicial review privileges described in paragraph (c)(1) of this section shall apply.

(d) If the denial is reversed on appeal, the Board shall notify the requester in writing of the reversal. The notice shall include a brief statement outlining those portions of the individual's record which were not accurate, relevant, timely, or complete, and corrections of the record which were made, and shall provide the individual with a courtesy copy of the corrected record.

(e) Copies of all appeals and written determinations will be furnished by the System Manager to the Board.

(f) In unusual circumstances, time limits may be extended by not more than 10 working days by written notice to the individual making the request. The notice shall include the reasons for the extension and the date on which a determination is expected to be forthcoming. "Unusual circumstances" as used in this section shall include circumstances where a search and collection of the requested records from field offices or other establishments are required, cases where a voluminous amount of data is involved, and cases where consultations are required with other agencies or with others having a substantial interest in the determination of the request.

(g) *Statements of Disagreement.* (1) Written Statements of Disagreement may be furnished by the individual within 30 working days of the date of actual receipt of the final adverse determination of the Board. They shall be addressed to the Director, Bureau of Administration, National Transportation Safety Board, 800 Independence Avenue, S.W., Washington, D.C. 20594, and shall be clearly marked, both on the statement and on the envelope, "Privacy Act Statement of Disagreement."

(2) The Director, Bureau of Administration, or his designee, shall be responsible for ensuring that:

(i) The Statement of Disagreement is included in the system of records in which the disputed item of information is maintained; and

(ii) The original record is marked to indicate the information disputed, the existence of the Statement of Disagreement, and its location within the relevant system of records.

(3) The Director, Bureau of Administration, or his designee, may, if he deems it appropriate, prepare a concise Statement of Explanation indicating why the requested amendments or corrections were not made. Such Statement of Explanation shall be included in the system of records in the same manner as the Statement of Disagreement. Courtesy copies of the NTSB Statement of Explanation and the notation of dispute, as marked on the original record, shall be furnished to the individual who requested correction or amendment of the record.

(h) *Notices of correction and/or amendment, or dispute.* After a record has been corrected or a Statement of Disagreement has been filed, the Director, Bureau of Administration, or his designee, shall within 30 working days thereof, advise all previous recipients of the affected record as to the correction or the filing of the Statement of Disagreement. The identity of such recipients shall be determined pursuant to an accounting of disclosures required by the Act or any other accounting previously made. Any disclosure of disputed information occurring after a Statement of Disagreement has been filed shall clearly identify the specific information disputed and shall be accompanied by a copy of the Statement of Disagreement and a copy of any NTSB Statement of Explanation.

(i) *Disclosure to others of records concerning individuals.* Neither the Board nor other NTSB personnel shall disclose any record which is contained in a system of records maintained by NTSB, by any means of communication, including oral communication, to any person, or to another Government agency, except pursuant to a written request by, or with the prior written

consent, of the individual to whom the record pertains, unless disclosure of the record is:

(1) To the Board and NTSB personnel who have a need for the record in the performance of their duties;

(2) Required under the FOIA;

(3) For a routine use published in the *FEDERAL REGISTER*;

(4) To the Bureau of the Census for purposes of planning or carrying out a census or survey, or related activity pursuant to the provisions of title 13 of the U.S.C.;

(5) To a recipient who has provided NTSB with adequate advance written assurance that the record will be used solely as a statistical research or reporting record and that the record is transferred in a form that is not identifiable with respect to individuals;¹

(6) To the National Archives of the United States as a record which has sufficient historical or other value to warrant its continued preservation by the U.S. Government, or to the Administrator of the General Services Administration, or his designee, for evaluation to determine whether the record has such value;

(7) To another agency or to an instrumentality of any governmental jurisdiction within or under the control of the United States for a civil or criminal law enforcement activity if the activity is authorized by law, and if the head of the agency or instrumentality has made a written request to NTSB specifying the particular portion of the record desired and the law enforcement activity for which the record is sought;²

¹The advance written statement of assurance shall state the purpose for which the record is requested and certify that it will be used only for statistical purposes. Prior to release under this paragraph, the record shall be stripped of all personally identifiable information and reviewed to ensure that the identity of any individual cannot reasonably be determined by combining two or more statistical records.

²A record may be disclosed to a law enforcement agency at the initiative of NTSB if criminal conduct is suspected, provided that such disclosure has been established as a routine use by publication in the *FEDERAL REGISTER*, and the instance of misconduct is directly related to the purpose for which the record is maintained.

(8) To any person upon a showing of compelling circumstances affecting the health or safety of any individual;

(9) To either House of Congress or, to the extent of matter within its jurisdiction, to any committee, or subcommittee thereof, or to any joint committee of the Congress, or to any subcommittee of such joint committee;

(10) To the Comptroller General, or any of his authorized representatives, in the course of the performance of the duties of the General Accounting Office; or

(11) Pursuant to the order of a court of competent jurisdiction.

(j) *Notices of subpoenas.* When records concerning an individual are subpoenaed or otherwise disclosed pursuant to court order, the NTSB officer or employee served with the subpoena shall be responsible for assuring that the individual is notified of the disclosure within 5 days after such subpoena or other order becomes a matter of public record. The notice shall be mailed to the last known address of the individual and shall contain the following information: (1) The date the subpoena is returnable; (2) the court in which it is returnable; (3) the name and number of the case or proceeding; and (4) the nature of the information sought.

(k) *Notices of emergency disclosures.* When information concerning an individual has been disclosed to any person under compelling circumstances affecting health or safety, the NTSB officer or employee who made or authorized the disclosure shall notify the individual at his last known address within 5 days of the disclosure. The notice shall contain the following information: (1) The nature of the information disclosed; (2) the person or agency to whom the information was disclosed; (3) the date of the disclosure; and (4) the compelling circumstances justifying the disclosure.

[41 FR 22358, June 3, 1976, as amended at 41 FR 43154, Sept. 30, 1976]

Subpart F—Fees

§ 802.15 Fees.

No fees shall be charged for providing the first copy of a record, or any portion thereof, to individuals to whom the record pertains. The fee schedule for other records is the same as that appearing in the Appendix to Part 801 of this chapter, implementing the FOIA, as amended from time to time, except that the cost of any search for and review of the record shall not be included in any fee under this Act, pursuant to subsection (f)(5) of the Act.

Subpart G—Penalties

§ 802.18 Penalties.

(a) An individual may bring a civil action against the NTSB to correct or amend the record, or where there is a refusal to comply with an individual request or failure to maintain any record with accuracy, relevance, timeliness and completeness, so as to guarantee fairness, or failure to comply with any other provision of 5 U.S.C. 552a. The court may order the correction or amendment. It may assess against the United States reasonable attorney fees and other costs, or may enjoin the NTSB from withholding the records and order the production to the complainant, and it may assess attorney fees and costs.

(b) Where it is determined that the action was willful or intentional with respect to 5 U.S.C. 552(g)(1) (c) or (d), the United States shall be liable for the actual damages sustained, but in no case less than the sum of \$1,000 and the costs of the action with attorney fees.

(c) Criminal penalties may be imposed against an officer or employee of the NTSB who fully discloses material which he knows is prohibited from disclosure, or who willfully maintains a system of records without meeting the notice requirements, or who knowingly and willfully requests or obtains any record concerning an individual from an agency under false pretenses. These offenses shall be misdemeanors with a fine not to exceed \$5,000.

Subpart H—Specific Exemptions

§ 802.20 Security records.

Pursuant to, and limited by, 5 U.S.C. 552a(k)(5), the NTSB's system of records, which contains the Security Records of NTSB employees, prospective employees, and potential contractors, shall be exempt from disclosure of the material and the NTSB's handling thereof under subsections (d), (e)(1) and (e)(4) (H) and (I) of 5 U.S.C. 552a.

PART 803—OFFICIAL SEAL

Sec.

803.1 Description.

803.3 Authority to affix Seal.

803.5 Use of the Seal.

AUTHORITY: Sec. 303(c)(2), Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2168 (49 U.S.C. 1902(c)(2)).

§ 803.1 Description.

The official seal of the National Transportation Safety Board is described as follows: An American bald eagle with wings displayed, holding in his dexter (right) talon an olive branch and in his sinister (left) talon, a bundle of 13 arrows; above his head is a scroll inscribed "E Pluribus Unum," bearing a shield with vertical stripes of alternating white and red, crowned by a field of blue, all within an encircling inscription "National Transportation Safety Board." When illustrated in color, the background is white. The wings, the body, and the upper portion of the legs of the eagle are shades of brown; the head, neck, and tail are white; the beak, feet, and lower portion of the legs are gold. The inscription on the scroll is black. The encircling inscription is the same shade of gold as the eagle's beak. The arrows and the olive branch are a lighter shade of gold. The red and blue of the shield are national flag red and blue. The official seal of the Board, in black and white, appears below:



[43 FR 36454, Aug. 17, 1978]

§ 803.3 Authority to affix Seal.

(a) The Seal shall be in the custody and control of the Director, Bureau of Administration of the Board.

(b) The Director, Bureau of Administration may delegate and authorize redelegations of this authority.

[40 FR 30238, July 17, 1975, as amended at 41 FR 39758, Sept. 16, 1976]

§ 803.5 Use of the Seal.

(a) The Seal is the official emblem of the Board and its use is therefore permitted only as provided in this part.

(b) Use by any person or organization outside of the Board may be made only with the Board's prior written approval.

(c) Requests by any person or organization outside of the Board for permission to use the Seal must be made in writing to Director, Bureau of Administration, National Transportation Safety Board, 800 Independence Avenue S.W., Washington, D.C. 20594. The request must specify in detail the exact use to be made. Any permission granted shall apply only to the specific use for which it was granted.

(d) Use of the Seal shall be essentially for informational purposes. The Seal may not be used on any article or in any manner which may discredit the Seal or reflect unfavorably upon the Board, or which implies Board endorsement of commercial products or services, or of the user's or users' poli-

cies or activities. Specifically, permission may not be granted under this section for nonofficial use—

(1) On souvenir or novelty items of an expendable nature;

(2) On toys, gifts, or premiums;

(3) As a letterhead design;

(4) On menus, matchbook covers, calendars, or similar items;

(5) To adorn civilian clothing; or

(6) On athletic clothing or equipment.

(e) Where necessary to avoid any prohibited implication or confusion as to the Board's association with the user or users, an appropriate legend will be prescribed by the Board for prominent display in connection with the permitted use.

(f) Falsely making, forging, counterfeiting, mutilating, or altering the Seal, or knowingly using or possessing with fraudulent intent any altered Seal is punishable under section 506 of Title 18, U.S.C.

[40 FR 30238, July 17, 1975, as amended at 41 FR 39758, Sept. 16, 1976]

PART 804—RULES IMPLEMENTING THE GOVERNMENT IN THE SUNSHINE ACT

Sec.

804.1 Applicability.

804.2 Policy.

804.3 Definitions.

804.4 Open meetings requirement.

804.5 Grounds on which meetings may be closed or information may be withheld.

804.6 Procedures for closing meetings, or withholding information, and requests by affected persons to close a meeting.

804.7 Procedures for public announcement of meetings.

804.8 Changes following public announcement.

804.9 Transcripts, recordings, or minutes of closed meetings.

804.10 Availability and retention of transcripts, recordings, and minutes, and applicable fees.

AUTHORITY: Government in the Sunshine Act, Pub. L. 94-409, 90 Stat. 1241 (5 U.S.C. 552b); Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2166 (49 U.S.C. 1901 et seq.).

SOURCE: 42 FR 13284, Mar. 10, 1977, unless otherwise noted.

§ 804.1

49 CFR Ch. VIII (10-1-85 Edition)

§ 804.1 Applicability.

(a) This part implements the provisions of the Government in the Sunshine Act (5 U.S.C. 552b). These procedures apply to meetings, as defined herein, of the Members of the National Transportation Safety Board (NTSB).

(b) Requests for all documents other than the transcripts, recordings, and minutes described in § 804.9 shall continue to be governed by Part 801 of the NTSB regulations (49 CFR Part 801).

§ 804.2 Policy.

It is the policy of the NTSB to provide the public with the fullest practicable information regarding the decisionmaking processes of the Board, while protecting the rights of individuals and the ability of the Board to discharge its statutory functions and responsibilities. The public is invited to attend but not to participate in open meetings.

§ 804.3 Definitions.

As used in this part: "Meeting" means the deliberations of three or more Members where such deliberations determine or result in the joint conduct or disposition of official NTSB business, and includes conference telephone calls otherwise coming within the definition. A meeting does not include:

(a) Notation voting or similar consideration of business, whether by circulation of material to the Members individually in writing or by a polling of the Members individually by telephone.

(b) Deliberations by three or more Members (1) to open or to close a meeting or to release or to withhold information pursuant to § 804.6, (2) to call a meeting on less than seven days' notice as permitted by § 804.7(b), or (3) to change the subject matter or the determination to open or to close a publicly announced meeting under § 804.8(b).

(c) An internal session attended by three or more Members for which the sole purpose is to have the staff brief the Board concerning an accident, incident, or safety problem.

"Member" means an individual duly appointed and confirmed to the collegial body, known as "the Board," which heads the NTSB.

"National Transportation Safety Board (NTSB)" means the agency set up under the Independent Safety Board Act of 1974.

[42 FR 13284, Mar. 10, 1977, as amended at 42 FR 31794, June 23, 1977]

§ 804.4 Open meetings requirement.

Members shall not jointly conduct or dispose of agency business other than in accordance with this part. Except as provided in § 804.5, every portion of every meeting of the Board shall be open to public observation.

§ 804.5 Grounds on which meetings may be closed or information may be withheld.

Except in a case where the Board finds that the public interest requires otherwise, a meeting may be closed and information pertinent to such meeting otherwise required by §§ 804.6, 804.7, and 804.8 to be disclosed to the public may be withheld if the Board properly determines that such meeting or portion thereof or the disclosure of such information is likely to:

(a) Disclose matters that are (1) specifically authorized under criteria established by an Executive Order to be kept secret in the interests of national defense or foreign policy, and (2) are in fact properly classified pursuant to such Executive Order;

(b) Relate solely to the internal personnel rules and practices of the NTSB;

(c) Disclose matters specifically exempted from disclosure by statute (other than 5 U.S.C. 552): *Provided*, That such statute (1) requires that the matters be withheld from the public in such a manner as to leave no discretion on the issue, or (2) establishes particular criteria for withholding or refers to particular types of matters to be withheld;

(d) Disclose trade secrets and commercial or financial information obtained from a person and privileged or confidential,

(e) Involve accusing any person of a crime, or formally censuring any person;

(f) Disclose information of a personal nature where disclosure would constitute a clearly unwarranted invasion of personal privacy;

(g) Disclose investigatory records compiled for law enforcement purposes, or information which if written would be contained in such records, but only to the extent that the production of such records or information would:

(1) Interfere with enforcement proceedings;

(2) Deprive a person of a right to a fair trial or an impartial adjudication;

(3) Constitute an unwarranted invasion of personal privacy;

(4) Disclose the identity of a confidential source and, in the case of a record compiled by a criminal law enforcement authority in the course of a criminal investigation, or by an agency conducting a lawful national security intelligence investigation, confidential information furnished only by the confidential source;

(5) Disclose investigative techniques and procedures; or

(6) Endanger the life or physical safety of law enforcement personnel;

(h) Disclose information contained in or related to examination, operating, or condition reports prepared by, on behalf of, or for the use of an agency responsible for the regulation or supervision of financial institutions;

(i) Disclose information the premature disclosure of which would be likely to significantly frustrate implementation of a proposed action of the NTSB: *Provided*, That the NTSE has not already disclosed to the public the content or nature of its proposed action or is not required by law to make such disclosure on its own initiative prior to taking final action on such proposal; or

(j) Specifically concern the Board's issuance of a subpoena, or the NTSB's participation in a civil action or proceeding, an action in a foreign court or international tribunal, or an arbitration, or the initiation, conduct, or disposition by the NTSB of a particular case of formal agency adjudication pursuant to the procedures in 5 U.S.C.

554 or otherwise involving a determination on the record after opportunity for a hearing.

§ 804.6 Procedures for closing meetings, or withholding information, and requests by affected persons to close a meeting.

(a) A meeting shall not be closed, or information pertaining thereto withheld, unless a majority of all Members votes to take such action. A separate vote shall be taken with respect to any action under § 804.5. A single vote is permitted with respect to a series of meetings, a portion or portions of which are proposed to be closed to the public, or with respect to any information concerning such series of meetings, so long as each meeting in such series involves the same particular subject matters and is scheduled to be held no more than thirty days after the initial meeting in such series. Each Member's vote under this paragraph shall be recorded and proxies are not permitted.

(b) Any person whose interest may be directly affected if a portion of a meeting is open may request the Board to close that portion on any of the grounds referred to in § 804.5 (e), (f), or (g). Requests, with reasons in support thereof, should be submitted to the General Counsel, National Transportation Safety Board, 800 Independence Avenue, S.W., Washington, D.C. 20594. On motion of any Member, the Board shall determine by recorded vote whether to grant the request.

(c) Within one working day of any vote taken pursuant to this section, the NTSB shall make available a written copy of such vote reflecting the vote of each Member on the question and, if a portion of a meeting is to be closed to the public a full written explanation of its action closing the meeting and a list of all persons expected to attend and their affiliation.

(d) Before every closed meeting, the General Counsel of the NTSB shall publicly certify that, in his or her opinion, the meeting may be closed to the public and shall state each relevant exemptive provision. A copy of such certification, together with a

statement of the presiding officer setting forth the time and place of the meeting and the persons present, shall be retained by the NTSB as part of the transcript, recording, or minutes required by § 804.9.

§ 804.7 Procedures for public announcement of meetings.

(a) For each meeting, the NTSB shall make public announcement, at least one week before the meeting, of the:

- (1) Time of the meeting;
- (2) Place of the meeting;
- (3) Subject matter of the meeting;
- (4) Whether the meeting is to be open or closed; and

(5) The name and business telephone number of the official designated by the NTSB to respond to requests for information about the meeting.

(b) The one week advance notice required by paragraph (a) of this section may be reduced only if:

(1) A majority of all Members determines by recorded vote that NTSB business requires that such meeting be scheduled in less than seven days; and

(2) The public announcement required by paragraph (a) of this section be made at the earliest practicable time.

(c) Immediately following each public announcement required by this section, or by § 804.8, the NTSB shall submit a notice of public announcement for publication in the **FEDERAL REGISTER**.

§ 804.8 Changes following public announcement.

(a) The time or place of a meeting may be changed following the public announcement only if the NTSB publicly announces such change at the earliest practicable time. Members need not approve such change.

(b) The subject matter of a meeting or the determination of the Board to open or to close a meeting, or a portion thereof, to the public may be changed following public announcement only if:

(1) A majority of all Members determines by recorded vote that NTSB business so requires and that no earlier announcement of the change was possible; and

(2) The NTSB publicly announces such change and the vote of each Member thereon at the earliest practicable time.

§ 804.9 Transcripts, recordings, or minutes of closed meetings.

Along with the General Counsel's certification and presiding officer's statement referred to in § 804.6(d), the NTSB shall maintain a complete transcript of electronic recording adequate to record fully the proceedings of each meeting, or a portion thereof, closed to the public. The NTSB may maintain a set of minutes in lieu of such transcript or recording for meetings closed pursuant to § 804.5 (h) or (j). Such minutes shall fully and clearly describe all matters discussed and shall provide a full and accurate summary of any actions taken, and the reasons therefor, including a description of each of the views expressed on any item and the record of any rollcall vote. All documents considered in connection with any actions shall be identified in such minutes.

§ 804.10 Availability and retention of transcripts, recordings, and minutes, and applicable fees.

The NTSB shall make promptly available to the public the transcript, electronic recording, or minutes of the discussion of any item on the agenda or of any testimony received at the meeting, except for such item, or items, of discussion or testimony as determined by the NTSB to contain matters which may be withheld under the exemptive provisions of § 804.5. Copies of the nonexempt portions of the transcript or minutes, or transcription of such recordings disclosing the identity of each speaker, shall be furnished to any person at the actual cost of transcription or duplication. The NTSB shall maintain a complete verbatim copy of the transcript, a complete copy of the minutes, or a complete electronic recording of each meeting, or a portion thereof, closed to the public for at least two years after such meeting, or until one year after the conclusion of any NTSB proceeding with respect to which the meeting, or

a portion thereof, was held, whichever occurs later.

PART 805—EMPLOYEE RESPONSIBILITIES AND CONDUCT

Sec.

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APPENDIX I—MISCELLANEOUS STATUTORY PROVISIONS

APPENDIX II—EMPLOYEES REQUIRED TO SUBMIT STATEMENTS

AUTHORITY: E.O. 11222 of May 8, 1965, 30 FR 6469, 3 CFR 1965 Supp.; 5 CFR 735.101 et seq., and 5 CFR 735.404.

SOURCE: 40 FR 30239, July 17, 1975, unless otherwise noted.

§ 805.735-1 Purpose.

This part sets forth the standards of ethical and other conduct required of all Board Members and employees, in implementation of Executive Order 11222, May 8, 1965 (30 FR 6469), and Part 735 of the Civil Service Commission Regulations adopted pursuant thereto (5 CFR Part 735). It also contains references to the several applicable statutes governing employee conduct, particularly Pub. L. 87-849, 76 Stat. 119 (18 U.S.C. 201 et seq.), and the "Code of Ethics for Government Service," House Concurrent Resolution 175, 85th Congress, 2d Session (72 Stat. B12).

§ 805.735-2 Definitions.

As used in this part:

"Members and employees" means the Board Members and employees of the National Transportation Safety Board (Board) and active duty officers or enlisted members of the Armed Forces detailed to the Board, but does not include special Government employees.

"Persons" means an individual, a corporation, a company, an association, a firm, a partnership, a society, a joint stock company, or any other organization or institution.

"Special Government employee" means an employee of the Board who is retained, designated, appointed, or employed to perform temporary duties, with or without compensation, for a period not to exceed 120 days during any period of 365 consecutive days, on either a full-time or intermittent basis.

"Executive order" means Executive Order 11222 of May 8, 1965 (30 FR 6469).

§ 805.735-3 Policy.

(a) The maintenance of unusually high standards of honesty, integrity, impartiality, and conduct by its Members and employees and special Government employees is essential to assure the proper performance of the Board's business and the maintenance of confidence by citizens in their Government. Therefore, the Board requires that its Members and employees and special Government employees

adhere strictly to the highest standard of ethical conduct in all of their social, business, political and other off-the-job activities, relationships, and interests, as well as in their official actions.

(b) All Members and employees and special Government employees shall avoid situations which might result in actual or apparent misconduct or conflicts of interest.

(c) Members and employees shall avoid any action, whether or not specifically prohibited by the regulations in this part which might result in, or create the appearance of:

- (1) Using public office for private gain;
- (2) Giving preferential treatment to any person;
- (3) Impeding Government efficiency or economy;
- (4) Losing complete independence or impartiality;
- (5) Making a Government decision outside official channels; or
- (6) Affecting adversely the confidence of the public in the integrity of the Government.

§ 805.735-4 Financial interests of Members and employees.

(a) A Member or employee shall not:

- (1) Have direct or indirect financial interests which conflict, or appear to conflict, with his assigned duties and responsibilities within the Board; or

(2) Engage in, directly or indirectly, a financial transaction as a result of, or primarily relying on, information obtained through his employment by the Board.

(b) This section does not preclude a Member or an employee from having a financial interest or engaging in financial transactions to the same extent as a private citizen not employed by the Government, so long as it is not prohibited by law, the Executive Order, 5 CFR Part 735, or the regulations in this part.

§ 805.735-5 Receipt of gifts, entertainment, and favors by Members or employees.

(a) Except as provided in paragraphs (b) and (g) of this section, a Member or employee shall not solicit or accept, directly or indirectly, any gift, gratuity, favor, entertainment, loan, or any

other thing of monetary value, from a person who:

(1) Has, or is seeking to obtain, contractual or other business or financial relations with the Board;

(2) Conducts operations or activities that are subject to Board jurisdiction; or

(3) Has interests that may be substantially affected by the performance or nonperformance of his official duty.

(b) The prohibitions of paragraph (a) of this section do not apply to:

(1) Obvious family or personal relationships such as those between the employee and his parents, children, or spouse, when the circumstances make it clear that those relationships rather than the business of the persons concerned are the motivating factors;

(2) Acceptance of food and refreshments of nominal value on infrequent occasions in the ordinary course of a luncheon or dinner meeting, other meetings, or inspection tours where a Member or employee may properly be in attendance;

(3) Acceptance of unsolicited advertising or promotional material, such as pens, pencils, note pads, calendars, and other items of nominal intrinsic value;

(4) Acceptance of loans from banks or other financial institutions on customary terms to finance proper and usual activities of employees, such as home mortgage loans;

(5) Utilization by Members or employees of the services offered to the public by any of the persons specified in paragraph (a) of this section: *Provided*, That full value, as published in a carrier's tariffs, or as is customarily charged to the public, is paid therefor;

(6) Carriage without charge by a carrier, of Members or employees engaged in official duties, for safety purposes, as provided for in the Civil Aeronautics Board's regulations;

(7) Acceptance of invitations, when approved by the Chairman or the Managing Director, with respect to meals and accommodations when on official business outside the continental United States; where commercial accommodations are unavailable or inappropriate; or where refusal of the offer would be otherwise inappropriate in light of all circumstances involved; and

(8) Acceptance of an invitation addressed to the Board, when approved by the Chairman or the Managing Director, by an employee (including, where applicable, his wife or a member of his immediate family), to participate in an inaugural flight or similar ceremonial event related to transportation, and accept food, lodging, and entertainment incident thereto.

(c) Members and employees shall not solicit contributions from another Member or employee for a gift, or make a donation as a gift, to a Member or employee in a superior official position.

(d) A Member or an employee in a superior official position shall not accept a gift from an employee or employees receiving less salary than himself. However, paragraph (c) of this section and this paragraph (d) do not prohibit a voluntary gift of nominal value or a donation in a nominal amount made on a special occasion, such as marriage, illness, retirement, or transfer.

(e) Members and employees shall not accept a gift, present, decoration, or other thing from a foreign government unless authorized by Congress as provided by the Constitution and in 5 U.S.C. 7342.

(f) Members and employees may not be directly reimbursed by a person for travel on official business under agency orders. However, reimbursement in the form of a donation may be made to the Board. The Member or employee involved will be paid by the Board in accordance with applicable laws and regulations relating to reimbursement for official travel. If the Member or employee is furnished accommodations, goods, or services in kind they may be treated as a donation to the Board, and either no per diem and other travel expenses will be paid or an appropriate reduction will be made in the per diem or other travel expenses payable, depending upon the extent of the donation. No Member or employee may be reimbursed, or payment made on his behalf, for excessive personal living expenses, gifts, entertainment, or other personal benefits.

(g) Members and employees are not precluded from receiving bona fide reimbursement, unless prohibited by law, for expenses of nonofficial travel and such other necessary subsistence as is compatible with this part for private personal interests for which no Government payment or reimbursement is authorized.

[40 FR 30239, July 17, 1975, as amended at 41 FR 39758, Sept. 16, 1976]

§ 805.735-6 Misuse of information by Members and employees.

For the purpose of furthering private interest, Members and employees shall not, except as provided in § 805.735-7(c), directly or indirectly, use, or allow the use of, official information obtained through or in connection with his employment within the Board which has not been made available to the general public.

§ 805.735-7 Outside activities of Members and employees.

(a) A Member or employee shall not engage in outside employment or other outside activity not compatible with the full and proper discharge of his duties and responsibilities as an officer or employee of the Board. Before an employee can engage in outside employment or activity for profit, he shall obtain the approval of the Board's Managing Director by requesting written authorization from the Managing Director prior to engaging in such activity. Board Members desiring to engage in outside employment or activity for profit may request prior written authorization from the Chairman. Should such authorization be granted, the Member or employee has a continuing responsibility to confine himself to the scope of the authorization. If the circumstances change so as to involve a possible incompatible activity, the Member or employee must seek further authorization in order to continue in his outside employment or activity for profit. Authorization granted in specific cases may be deemed subsequently to involve an incompatible activity, and in such cases the Member or employee concerned shall be notified in writing of the cancellation of the authorization with in-

structions to modify or terminate the outside activity at the earliest practicable time.

(b) Incompatible activities by Members or employees include, but are not limited to:

(1) Acceptance of a fee, compensation, gift, payment of expense, or any other thing of monetary value in circumstances in which acceptance may result in, or create the appearance of, a conflict of interest; or

(2) Outside employment or activity which tends to impair his mental or physical capacity to perform in an acceptable manner his duties and responsibilities within the Board.

(c) Employees are encouraged to engage in teaching, lecturing, and writing that is not prohibited by law, the Executive order, 5 CFR Part 735, or the regulations in this part. However, an employee shall not, either for or without compensation, engage in teaching, lecturing, or writing, including teaching, lecturing, or writing for the purpose of the special preparation of a person or class of persons for an examination of the Civil Service Commission or Board of Examiners for the Foreign Service, that is dependent on information obtained as a result of his employment by the Board, except when that information has been made available to the general public or will be made available on request, or when the Chairman gives written authorization for the use of nonpublic information on the basis that the use is in the public interest.

(d) Board Members, as Presidential appointees covered by section 401(a) of the Executive order, are specifically precluded by 5 CFR 735.203(c) from receiving compensation or anything of monetary value for any consultation, lecture, discussion, writing, or appearance, the subject matter of which is devoted substantially to the responsibilities, programs, or operations of their agency, or which draws substantially on official data or ideas which have not become part of the body of public information.

(e) If an activity covered by paragraphs (c) and (d) of this section is to be undertaken as official duty, expenses will be borne by the Board, and the Member or employee may not

accept compensation or allow his expenses to be paid for by the person or group under whose auspices the activity is being performed. If it is determined that the activity is to be undertaken in a private capacity, the Member or employee may not use duty hours or Government facilities, but he may accept compensation, and he may use his official title if he makes it clear that he does not represent the Board.

(f) Members and employees shall not receive any salary or anything of monetary value from a private source as compensation for his services to the Board (18 U.S.C. 209).

(g) This section does not preclude a Member or employee from:

(1) Participating in the activities of national or State political parties not prohibited by law;

(2) Participating in the affairs of or acceptance of an award for a meritorious public contribution or achievement given by a charitable, religious, professional, social, fraternal, nonprofit educational or recreational, public service, or civic organization.

[40 FR 30239, July 17, 1975, as amended at 41 FR 39758, Sept. 16, 1976]

§ 805.735-8 Employment of family members in transportation and related enterprises.

(a) No individual will be employed or retained in employment by the Board if a member of his immediate family (blood relations who are residents of the employee's household) is employed by a carrier, a person or firm representing a carrier, or a transportation trade association.

(b) Members and employees may request a waiver, modification, or postponement of the implementation of this prohibition from the Chairman and Managing Director, respectively, on the grounds of undue hardship to himself or the family member involved. The request must contain an agreement to forego any privilege to which the Board Member or employee would be entitled as a relative of the family member.

[40 FR 30239, July 17, 1975, as amended at 41 FR 39758, Sept. 16, 1976]

§ 805.735-9 Use of Government property.

Members and employees shall not, directly or indirectly, use, or allow the use of, Board property of any kind, including property leased to the Board, for other than officially approved activities. A Member or employee has a positive duty to protect and conserve Board property, including equipment, supplies, and other property entrusted to or issued to him.

§ 805.735-10 Member and employee indebtedness.

Members and employees shall pay each just financial obligation in a proper and timely manner, especially one imposed by law, such as Federal, State, or local taxes. For the purpose of this section, a "just financial obligation" means one acknowledged by the employee or one reduced to judgment by a court, and "in a proper and timely manner" means in a manner which the Board determines does not, under the circumstances, reflect adversely on the Board as his employer.

§ 805.735-11 Gambling, betting, and lotteries.

Members and employees shall not participate, while on Board-owned or leased property or while on duty for the Board, in any gambling activity, including the operation of a gambling device, conducting a lottery or pool, a game for money or property, or in selling or purchasing a numbers slip or ticket. However, this section does not preclude activities regarding solicitations conducted by an employee recreation and welfare organization among its members, for organizational support, or for benefit or welfare funds for its members, these activities having been approved under section 3 of Executive Order 10927, dated March 18, 1961.

§ 805.735-12 Coercion.

Members and employees shall not use their employment by the Board to coerce, or give the appearance of coercing, a person to provide financial benefit to themselves or another person, particularly one with whom they have family, business, or financial ties.

§ 805.735-13 Conduct prejudicial to the Government.

Members and employees shall not engage in criminal, infamous, dishonest, immoral, or notoriously disgraceful conduct, or other conduct prejudicial to the Board or to the Government.

§ 805.735-14 Specific regulations for special Government employees.

(a) *Use of Board affiliation.* A special Government employee of the Board shall not use his Government employment for a purpose that is, or gives the appearance of being, motivated by the desire for private gain for himself or another person, particularly one with whom he has family, business, or financial ties.

(b) *Use of inside information.* (1) A special Government employee shall not use inside information obtained as a result of his employment by the Board for private gain for himself or another person, either by direct action on his part or by counsel, recommendation, or suggestion to another person, particularly one with whom he has family, business, or financial ties. For this purpose of this section, "inside information" means information obtained under Government authority which has not become part of the body of public information.

(2) Special Government employees may teach, lecture, or write in a manner not inconsistent with § 805.735-7(c) for employees.

(c) *Receipt of gifts, entertainment, and favors.* (1) A special Government employee, while employed by the Board or in connection with his employment, shall not receive or solicit from a person having business with the Board, anything of value such as a gift, gratuity, loan, entertainment, or favor for himself or another person, particularly one with whom he has family, business, or financial ties.

(2) The exception as set forth in § 805.735-5(b) for employees will apply with equivalent force and effect to special Government employees with regard to the prohibitions of paragraph (a) of this section.

(d) *Applicability of other provisions.* The provisions of § 805.735-9 (Use of

Government property), § 805.735-11 (Gambling, betting, and lotteries), § 805.735-12 (Coercion), § 805.735-13 (Conduct prejudicial to the Government) and § 805.735-15 (Miscellaneous statutory provisions) apply to special Government employees in the same manner as to employees.

§ 805.735-15 Miscellaneous statutory provisions.

Each Member and employee shall acquaint himself with the statutory provisions in Appendix I, attached hereto and made a part thereof, which relate to his ethical and other conduct as a Member and employee of the Board and the Government.

§ 805.735-16 Statements of employment and financial interests.

(a) All employees in the positions specified in Appendix II, attached hereto and made a part thereof, shall submit a statement of employment and financial interests under the regulations in this part in triplicate to the Personnel Officer not later than:

(1) Ninety days after the effective date of the regulations in this part if he is employed on or before that effective date; or

(2) Thirty days after he becomes subject to the reporting requirements by occupying a position covered under paragraph (a) of this section, if he occupies the position after that effective date.

(b) An employee required to submit a statement of employment and financial interests shall submit that statement in the format prescribed by the Managing Director.

(c) Board Members are subject to separate reporting requests under section 401 of the Executive order, and are not required to file statements pursuant to this section.

[40 FR 30239, July 17, 1975, as amended at 41 FR 39758, Sept. 16, 1976]

§ 805.735-17 Supplementary statements.

Changes in, or additions to, the information contained in an employee's statement of employment and financial interests shall be reported in supplementary statements, in the format prescribed by the Managing Director, as of June 30th of each year. If there

are not changes or additions, a negative report is not required. Notwithstanding the filing of the annual report required by this section, each employee shall at all times avoid acquiring a financial interest that could result, or taking an action that would result, in a violation of the conflict-of-interest provisions, 18 U.S.C. 208, or the provisions of this part.

[40 FR 30239, July 17, 1975, as amended at 41 FR 39758, Sept. 16, 1976]

§ 805.735-18 Interests of employees' relatives.

The interest of a spouse, minor child, or other members of an employee's immediate household is considered to be an interest of the employee. For the purpose of this section, "member of an employee's household" means those blood relations who are residents of the employee's household.

§ 805.735-19 Information not known by employees.

If any information required to be included on a statement of employment and financial interests or supplementary statement, including holdings placed in trust, is not known to the employee but is known to another person, the employee shall require that other person to submit information in his behalf.

§ 805.735-20 Information not required of employees.

An employee is not required to submit on a statement of employment and financial interests or supplementary statement, any information relating to the employee's connection with, or interest in, a professional society or a charitable, religious, social, fraternal, recreational, public service, civic, or political organization, or a similar organization not conducted as a business enterprise. For the purpose of this section, educational and other institutions doing research and development or related work, involving grants of money from or contracts with the Government, are deemed "business enterprises" and are required to be included in an employee's statement of employment and financial interests.

§ 805.735-21 Confidentiality of statements.

Subject to the provisions of § 805.735-24 concerning review of employee statements, each statement of employment and financial interests, and each supplementary statement, shall be held in confidence. The Personnel Officer is personally responsible for the retention of employee statements in confidence and may not disclose information from a statement or allow access to a statement, except to carry out the purpose of this part, or as the Civil Service Commission or the Chairman may determine for good cause shown.

§ 805.735-22 Effect of statements on other requirements.

The statements of employment and financial interests and supplementary statements required of employees are in addition to, and not in substitution for, or in derogation of, any similar requirement imposed by law, order, or regulation. The submission of a statement or supplementary statement by an employee does not permit him or any other person to participate in a matter in which his or the other person's participation is prohibited by law, order, or regulation.

§ 805.735-23 Submission of statements by special Government employees.

(a) A special Government employee shall submit a statement of employment and financial interests which reports:

- (1) All other employment; and
- (2) The financial interests of the special Government employee which the Chairman determines are relevant in the light of the duties he is to perform.

(b) A special Government employee who is a consultant or expert shall submit a statement of employment and financial interests to the Personnel Officer, in the format prescribed by the Managing Director, at the time of his employment, and shall keep his statement current throughout his period of employment by submission of supplementary statements.

(c) The Chairman may waive the requirement in paragraph (a) of this section for the submission of a statement of employment and financial interests

in the case of a special Government employee who is not a consultant or an expert when it has been determined that the duties of the position held by the special Government employee are of a nature, and at such a level of responsibility, that the submission of the statement by the incumbent is not necessary to protect the integrity of the Board. For the purpose of paragraphs (b) and (c) of this section, the following are examples of special Government employees who are not consultants and experts:

(1) A physician, dentist, or allied medical specialist whose services are procured to provide care and service to patients; or

(2) A veterinarian whose services are procured to provide care and service to animals.

[40 FR 30239, July 17, 1975, as amended at 41 FR 39758, Sept. 16, 1976]

§ 805.735-24 Review of financial statements.

(a) The Personnel Officer shall review each statement of employment and financial interests submitted under the regulations in this part (other than his own, which is reviewed by the Managing Director) to determine whether conflicts of interest or apparent conflicts of interest exist. If the review, or other information from other sources, indicates a conflict between the interests of an employee or special Government employee and the performance of his services for the Board, the Personnel Officer shall forward the statement, together with a position description of the employee involved, to the General Counsel of the Board.

(b) The employee or special Government employee whose statement has been referred under the provisions of paragraph (a) of this section will receive, from the General Counsel, advice and guidance regarding the matters questioned by the Personnel Officer. He will be afforded an opportunity to explain the conflict or appearance of conflict. It is expected that most problems will be settled at this informal stage. However, if an agreement cannot be reached after consultation, the matter shall be re-

ported by the General Counsel, after consulting with the Managing Director, to the Chairman for resolution.

(c) The Chairman may provide the employee or special Government employee concerned with an additional opportunity to explain the conflict or appearance of conflict. If the matter cannot be resolved, the Chairman may invoke the disciplinary provisions of § 805.735-27, or may decide that remedial steps shall be taken with regard to such employee or special Government employee. When the questions of conflict of interest are resolved at one of the stages of review, the reviewing official shall sign and date a copy of the employee's statement to evidence his clearance, and this statement shall thereafter be kept as provided in § 805.735-21.

[40 FR 30239, July 17, 1975, as amended at 41 FR 39758, Sept. 10, 1976]

§ 805.735-25 Publication and interpretation.

(a) The Personnel Officer of the Board shall be responsible for making the regulations in this part and all revisions thereof, and the formats for statements of employment and financial interests available to:

(1) Each Member, employee, and special Government employee at the time of issuance and at least annually thereafter;

(2) Each new Member, employee, and special Government employee of the Board at the time of his entrance on duty; and

(3) Each Member, employee, and special Government employee of the Board at such other times as circumstances warrant.

(b) The Personnel Officer shall have available for review by Members, employees, and special Government employees of the Board, copies of such laws, Executive orders, Civil Service Commission regulations and instructions, and Board regulations as may currently appertain to their standards of ethical and other conduct.

(c) The General Counsel of the Board is designated to provide counseling and assistance to interpret the regulations in this part and matters relating to ethical conduct, particularly matters subject to the provisions of

the conflict-of-interest laws and other matters covered by the Executive order. These counseling services are available to all Members, employees, and special Government employees at the General Counsel's office, by appointment for consultation or by written communication.

§ 805.735-26 Employee's complaint on filing requirements.

An employee who believes that his position has been improperly included under the regulations in this part, as one requiring the submission of a statement of employment and financial interests, may request review through the Board's grievance procedure.

§ 805.735-27 Disciplinary or remedial action.

(a) A violation of the regulations in this part by an employee or special Government employee may be cause for disciplinary action in addition to any penalty prescribed by Federal statute or regulation, except for active duty officers or enlisted members of the Armed Forces detailed to the Board in which cases disciplinary actions may be effected against such military personnel by the parent military service. Disciplinary action may take the form of a warning, suspension, demotion, or removal, depending upon the gravity of the offense.

(b) Any employee or special Government employee who is charged with a violation of the regulations in this part shall be provided an opportunity to explain the violation, or appearance of violation, to the charging authority. The charging authority shall be the Managing Director of the Board.

(c) When, after consideration of the explanation, the charging authority decides that disciplinary action is not required, he may take appropriate remedial action. Remedial action may include, but is not limited to:

(1) Changes in assigned duties;

(2) Divestment by the employee or special Government employee of any financial interest that conflicts, or appears to conflict, with the performance of his official duties; or

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(3) Disqualification for a particular assignment.

(d) Remedial or disciplinary action shall be effected in accordance with any applicable laws, Executive orders, and regulations.

[40 FR 30239, July 17, 1975, as amended at 41 FR 39758, Sept. 16, 1976]

APPENDIX I—MISCELLANEOUS STATUTORY PROVISIONS

Each Member and employee and each special Government employee has a positive duty to acquaint himself with each statute which relates to his ethical and other conduct as an officer or employee of the National Transportation Safety Board and of the Government. Therefore, each Member and employee and each special Government employee shall acquaint himself with the following statutory and nonstatutory provisions which relate to his ethical and other conduct:

(a) House Concurrent Resolution 175, 85th Congress, 2d Session (72 Stat. B12), the "Code of Ethics for Government Service."

(b) Chapter 11 of Title 18, United States Code, relating to bribery, graft, and conflicts of interest (18 U.S.C. 201 through 209).

(c) The prohibition against lobbying with appropriate funds (18 U.S.C. 1913).

(d) The prohibitions against disloyalty and striking (5 U.S.C. 7311, 18 U.S.C. 1918).

(e) The prohibition against the employment of a member of a Communist organization (50 U.S.C. 784).

(f) The prohibition against:

(1) The disclosure of classified information (18 U.S.C. 798, 50 U.S.C. 783); and

(2) The disclosure of confidential information (18 U.S.C. 1905, 49 U.S.C. 1472(f)).

(g) The provision relating to the habitual use of intoxicants to excess (5 U.S.C. 8352).

(h) The prohibition against the misuse of a Government vehicle (31 U.S.C. 638a(c)).

(i) The prohibition against the misuse of the franking privilege (18 U.S.C. 1719).

(j) The prohibition against the use of deceit in an examination or personnel action in connection with Government employment (18 U.S.C. 1917).

(k) The prohibition against fraud or false statements in a Government matter (18 U.S.C. 1001).

(l) The prohibition against mutilating or destroying a public record (18 U.S.C. 207).

(m) The prohibition against counterfeiting and forging transportation requests (18 U.S.C. 508).

(n) The prohibition against:

(1) Embezzlement of Government money or property (18 U.S.C. 641);

(2) Failing to account for public money (18 U.S.C. 643); and

(3) Embezzlement of the money or property of another person in the possession of an employee by reason of his employment (18 U.S.C. 654).

(o) The prohibition against unauthorized use of documents relating to claims from or by the Government (18 U.S.C. 285).

(p) The prohibition against political activities in subchapter III of chapter 73 of title 5, U.S.C., and 18 U.S.C. 602, 603, 607, and 608.

(q) The prohibition against an employee's acting as the agent of a foreign principal registered under the Foreign Agents Registration Act (18 U.S.C. 219).

APPENDIX II—EMPLOYEES REQUIRED TO SUBMIT STATEMENTS

Statements of employment and financial interests are required of the following:

(a) Employees in grades GS-16 or above, or in positions not subject to the Classification Act paid at a rate at or above the entrance rate for GS-16.

(b) Special assistants to the members.

(c) Office of the managing director:

(1) Legislative affairs officer.

(2) Program analysis officer.

(d) Attorneys in grade GS-15.

(e) Office of public affairs:

(1) Director.

(2) Deputy director.

(f) Bureau of administration:

(1) Director.

(2) Deputy director—personnel officer.

(3) Chief, operations and facilities division.

(4) Contracting specialist.

(5) Comptroller.

(6) Budget officer.

(7) Accounting officer.

(g) Division and branch chiefs within the bureaus of accident investigation, technology, and plans and programs.

(h) Chief or senior investigators, field offices.

[41 FR 39758, Sept. 16, 1976]

NOTE: The above regulation and its appendices were approved by the Civil Service Commission (OPM) on July 16, 1968, and September 13, 1972, respectively, prior to submission to the Office of the Federal Register.

PART 806—NATIONAL SECURITY INFORMATION POLICY AND GUIDELINES, IMPLEMENTING REGULATIONS

Sec.

- 806.1 General policy.
- 806.2 Applicability.
- 806.3 Definitions.
- 806.4 Mandatory review for declassification.

AUTHORITY: Sec. 304, Independent Safety Board Act of 1974, 88 Stat. 2168 (49 U.S.C. 1903), E.O. 12065, 43 FR 28949, July 3, 1978.

SOURCE: 45 FR 20104, Mar. 27, 1980, unless otherwise noted.

§ 806.1 General policy.

(a) The interests of the United States and its citizens are best served by making information regarding the affairs of Government readily available to the public. This concept of an informed citizenry is reflected in the Freedom of Information Act and in the current public information policies of the executive branch.

(b) Within the Federal Government there is some official information and material which, because it bears directly on the effectiveness of our national defense and the conduct of our foreign relations, must be subject to some constraints for the security of our Nation and the safety of our people and our allies. To protect against actions hostile to the United States, of both an overt and covert nature, it is essential that such official information and material be given only limited dissemination.

§ 806.2 Applicability.

This rule supplements Executive Order 12065 within the Board with regard to national security information. It establishes general policies and certain procedures for the classification and declassification of information which is generated, processed, and/or stored by the Board. In this connection, the Board does not have any original classification authority but infrequently does receive classified information from other agencies.

§ 806.3 Definitions.

(a) Classified information. Information or material, herein collectively

termed information, that is owned by, produced for or by, or under the control of, the United States Government and that has been determined pursuant to Executive Order 12065, or prior orders, to require protection against unauthorized disclosure and that is so designated. One of the following classifications will be shown:

(1) "Top secret" means information, the unauthorized disclosure of which reasonably could be expected to cause exceptionally grave damage to the national security.

(2) "Secret" means information, the unauthorized disclosure of which reasonably could be expected to cause serious damage to national security.

(3) "Confidential" means information, the unauthorized disclosure of which reasonably could be expected to cause identifiable damage to the national security.

(b) "Foreign government information" means either: (1) Information provided to the United States by a foreign government or international organization of governments in the expectation, express or implied, that the information is to be kept in confidence; or (2) information produced by the United States pursuant to a written joint arrangement with a foreign government or international organization of governments requiring that either the information or the arrangements or both, be kept in confidence.

(c) "National security" means the national defense and foreign relations of the United States.

(d) "Declassification event" means an event which would eliminate the need for continued classification.

§ 806.4 Mandatory review for declassification.

(a) Requests for mandatory review for declassification under section 3-501 of E.O. 12065 must be in writing and should be addressed to: National Security Oversight Officer, National Transportation Safety Board, Washington, D.C. 20594.

(b) The requester shall be informed of the date of receipt of the request at the Board. This date will be the basis for the time limits specified by section 3-501 of E.O. 12065. If the request

does not reasonably describe the information sought, the requester shall be notified that, unless additional information is provided or the request is made more specific, no further action will be taken.

(c) When the Board receives a request for information in a document which is in its custody but which was classified by another agency, it shall refer the request to the appropriate agency for review, together with a copy of the document containing the information requested, where practicable. The Board shall also notify the requester of the referral, unless the association of the reviewing agency with the information requires protection. The reviewing agency shall review the document in coordination with any other agency involved or which had a direct interest in the classification of the subject matter. The reviewing agency shall respond directly to the requester in accordance with the pertinent procedures described above and, if requested, shall notify the Board of its determination.

PART 821—RULES OF PRACTICE IN AIR SAFETY PROCEEDINGS

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Sec.

Subpart K—Judicial Review of Board Orders

821.64 Judicial review.

AUTHORITY: Title VI, Federal Aviation Act of 1958, as amended, 49 U.S.C. 1421 et seq., and Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2166 (49 U.S.C. 1901 et seq.), unless otherwise noted.

SOURCE: 40 FR 30243, July 17, 1975, unless otherwise noted.

Subpart A—General Provisions

§ 821.1 Definitions.

As used in this part:

"Act" means the Federal Aviation Act of 1958, as amended (49 U.S.C. 1301 et seq.);

"Administrator" means the Administrator of the Federal Aviation Administration (FAA);

"Airman certificate" means any certificate issued by the FAA to an airman and shall include medical certificates required for an airman;

"Appeal from an initial decision" means a request to the Board to review a law judge's decision;

"Appeal to the Board" means a request to the Board for the review by a law judge of an order of the Administrator;

"Board" means the National Transportation Safety Board;

"Certificate" means any certificate issued by the Administrator under Title VI of the Act;

"Chief Law Judge" means the administrative law judge in charge of the Office of Administrative Law Judges;

"Complaint" means an order of the Administrator from which an appeal to the Board has been taken pursuant to section 609 of the Act;

"Emergency order" means an order of the Administrator issued pursuant to section 609 of the Act, which recites that an emergency exists and that safety in air commerce or air transportation and the public interest require the immediate effectiveness of such order;

"Initial decision" means the law judge's decision on the issue remaining for disposition at the close of a hearing before him and/or an order granting a motion to dismiss in lieu of an answer, as provided in § 821.17, and

terminating the proceeding, except that "initial decision" does not include cases where the record is certified to the Board, with or without a recommended decision, or orders partly granting a motion to dismiss and requiring an answer to any remaining allegation, or rulings by the law judge on interlocutory matters appealed to the Board under § 821.16;

"Law judge" means the administrative law judge assigned to hear and preside over the respective proceedings;

"Petition for review" means a petition filed pursuant to section 602(b) of the Act for review of the Administrator's denial of an application for issuance or renewal of an airman certificate;

"Petitioner" means a person who has filed a petition for review;

"Respondent" means the holder of a certificate who has appealed to the Board from an order of the Administrator amending, modifying, suspending, or revoking any certificate.

Terms defined in the Act are used as so defined.

§ 821.2 Applicability and description of part.

The provisions of this part govern all air safety proceedings, including proceedings involving airman medical certification, before a law judge upon petition for review of the denial of any airman certificate or upon appeal from any order of the Administrator amending, modifying, suspending, or revoking any certificate, and upon appeal to the Board from any order or decision of a law judge.

[49 FR 28249, July 11, 1984]

Subpart B—General Rules Applicable to Petitions for Review, Appeals to the Board, and Appeals From Initial Decisions

§ 821.6 Appearances and rights of witnesses.

(a) Any party to a proceeding may appear and be heard in person or by attorney or other representative designated by him. No register of persons who may practice before the Board is

maintained, and no application for admission to practice is required. Upon hearing, and for good cause shown, the Board may suspend or bar any person from practicing before it.

(b) Any person appearing in person in any proceeding governed by this part, may be accompanied, represented, and advised by counsel and may be examined by his own counsel or representative.

(c) Any person who submits data or evidence in a proceeding governed by this part, may by timely request procure a copy of any document submitted by him, or a copy of any transcript made of his testimony on payment of reasonable costs. Original documents or data or evidence may be retained by a party upon permission of the law judge or the Board, upon substitution of a copy therefor.

(d) Any party to a proceeding who is represented by an attorney shall notify the Board of the name and address of that attorney. In the event of a change in counsel of record, a party shall notify the Board, in the manner provided in § 821.7(a), and the other parties to the proceeding, prior to participating in any way, including the filing of documents, in any proceeding.

[40 FR 30243, July 17, 1975, as amended at 49 FR 28249, July 11, 1984]

§ 821.7 Filing of documents with the Board.

(a) *Filing address, date and method of filing.* Documents to be filed with the Board shall be filed with the following: Office of Administrative Law Judges, National Transportation Safety Board, Washington, DC. 20594, by personal delivery or by mail (including U.S. Government franked envelope) and shall be deemed to be filed on the date of personal delivery, on the mailing date shown on the certificate of service, on the date shown on the postmark if there is no certificate of service, or on the mailing date shown by other evidence if there is no certificate of service and no postmark.

(b) *Number of copies.* Unless otherwise specified, an executed original and three true copies of each document shall be filed with the Office of Administrative Law Judges. Copies need not be signed, but the name of

the person signing the original shall be shown.

(c) *Form.* Petitions for review or appeals to the Board and appeals from initial decisions may be in the form of a letter to the Board signed by the petitioner or the party appealing and shall be typewritten or in legible handwriting.

(d) *Contents.* Each document shall contain a concise and complete statement of the facts relied upon and the relief sought.

(e) *Subscription.* The original of every document filed shall be signed by the person filing it or his duly authorized representative.

(f) *Designation of person to receive service.* The initial document filed shall state on the first page the name and post office address of the person or persons who may be served with documents in the proceeding.

(g) *Motions, requests, and documents.* All motions, requests, and documents in connection with petitions for review and appeals to the Board shall be filed with the chief law judge, until such time as he assigns a law judge to preside over the proceeding.

[40 FR 30243, July 17, 1975, as amended at 49 FR 28249, July 11, 1984]

§ 821.8 Service of documents.

(a) *Service by the Board.* The Board will serve orders, notices of hearing, and written initial decisions upon all parties to the proceeding by certified mail. Other documents will be served by certified mail or by regular mail (including U.S. Government franked envelope).

(b) *Service by others.* Copies of all documents filed with the Board must be served upon all parties to the proceeding by the person filing them.

(c) *Service by others.* Service may be made by personal delivery, by certified mail, or by regular mail (including U.S. Government franked envelope).

(d) *Who may be served.* Service upon a party or person may be made upon a person designated in accordance with § 821.7(f) to receive service. If no such person is designated, service may be made upon the party himself, if he is an individual, or upon an officer of a corporation or association, a member

of a partnership, or an agent of an air carrier designated under section 1005(b) of the Act.

(e) *Where service may be made.* Service by regular or certified mail shall be made at the address of the person designated in accordance with § 821.7(f) to receive service, or, if no such person is designated, at the usual residence or principal place of business of the party, or, if not known, at the address last furnished by him to the Federal Aviation Administration, except that an agent designated by an air carrier under section 1005(b) of the Act shall be served only at his office or usual place of residence. Service by mail on the Administrator shall be made at the office of his designee to receive service, or if none, at the Federal Aviation Administration, Office of the Chief Counsel, Washington, D.C. 20591. Personal service may be made on any of the persons described in paragraph (d) of this section wherever they may be found, except that an agent designated by an air carrier under section 1005(b) of the Act may be served only at his office or usual place of residence.

(f) *Certificate of service.* A certificate of service shall accompany all documents when they are tendered for filing and shall consist of a certificate of mailing executed by the person mailing the document.

(g) *Presumption of service.* There shall be a presumption of lawful service in the following instances:

(1) Where acknowledgement of receipt is made by a person who customarily receives mail or receives it in the ordinary course of business at either the residence or principal place of business of a person designated in accordance with § 821.7(f) to receive service; or

(2) Where there is no designee, acknowledgment of receipt at the residence or principal place of business of the party himself, by a person who customarily receives mail or receives it in the ordinary course of business; or

(3) Where a properly addressed envelope, indicating that it had been sent by regular, registered, or certified mail, has been returned marked "undelivered," "unclaimed," or "refused."

(h) *Date of service.* Whenever proof of service by mail is made, the date of service shall be the mailing date shown on the certificate of service, the mailing date shown by the postmark if there is no certificate of service, or the mailing date as shown by other evidence if there is no certificate of service and no postmark. Where personal delivery is made, the date of service shall be the date of personal delivery.

[40 FR 30243, July 17, 1975, as amended at 49 FR 28249, July 11, 1984]

§ 821.9 Intervention.

Any person may move for leave to intervene in a proceeding and may become a party thereto, if the law judge finds that such person may be bound by any order to be entered in the proceeding, or that such person has a property, financial, or other legitimate interest which may not be adequately represented by existing parties, and that such intervention will not unduly broaden the issues or delay the proceedings. Except for good cause shown, no motion for leave to intervene will be entertained if filed less than 10 days prior to hearing. The extent to which an intervenor may participate in the proceedings is within the discretion of the law judge.

[49 FR 28243, July 11, 1984]

§ 821.10 Computation of time.

In computing any period of time prescribed or allowed by this part, by notice or order of the Board or a law judge, or by any applicable statute, the date of the act, event, or default after which the designated period of time begins to run is not to be included in the computation. The last day of the period so computed is to be included unless it is a Saturday, Sunday, or legal holiday for the Board, in which event the period runs until the end of the next day which is neither a Saturday, Sunday, nor a legal holiday for the Board shall be computed in the calculation of time in all emergency cases under Subpart I of this part and shall be counted in the computation of time in all nonemergency cases where the period of time involves 7 days or more.

§ 821.11 Extension of time.

Upon written request filed with the Board and served upon all parties, and for good cause shown, the chief law judge, the law judge, or the Board, may grant an extension of time to file any document except a petition for reconsideration. Extensions of time to file petitions for reconsideration will be granted only in extraordinary circumstances.

§ 821.12 Amendment and withdrawal of pleadings.

(a) *Amendment.* At any time more than 15 days prior to the time of hearing, a party may amend his pleadings by filing the amended pleading with the Board and serving copies on the other parties. After that time, amendment shall be allowed only at the discretion of the law judge. Where amendment to an answerable pleading has been allowed, the law judge shall allow the adverse party a reasonable opportunity to answer.

(b) *Withdrawal.* A party may withdraw his pleadings only upon approval of the law judge or the Board.

§ 821.13 Waivers.

Waivers of any rights provided by statute or regulation shall either be in writing, or by stipulation made at a hearing and entered into the record, and shall set forth their precise terms and conditions.

§ 821.14 Motions.

(a) *General.* An application to the Board or to a law judge for an order or ruling not otherwise specifically provided for in this part shall be by motion. Prior to the assignment of a law judge, all motions shall be addressed to the chief law judge. Thereafter, and prior to the expiration of the period within which an appeal from the law judge's initial decision may be filed, or the certification of the record to the Board, all motions shall be addressed to the law judge. At all other times, motions shall be addressed to the Board. All motions not specifically provided for in any other section of this part shall be made at an appropriate time, depending upon the nature thereof and the relief requested.

(b) *Form and contents.* Unless made during a hearing, motions shall be made in writing, shall state with particularity the grounds for the relief sought, and the relief sought, and shall be accompanied by affidavits or other evidence relied upon. Motions introduced during hearings may be made orally on the record, unless the law judge directs otherwise.

(c) *Answers to motions.* Except when a motion is made during a hearing, any party may file an answer in support of or in opposition to a motion, accompanied by such affidavits or other evidence as he desires to rely upon, provided that the answer is filed within 7 days after the motion has been served upon him, or such other period as the Board or a law judge may fix. Where a motion is made during a hearing, the answer and the ruling thereon may be made at the hearing, or orally or in writing within such time as the law judge may fix.

(d) *Oral argument; briefs.* No oral argument will be heard on motions unless the Board or the law judge directs otherwise. Written memoranda or briefs may be filed with motions or answers to motions, stating the points and authorities relied upon in support of the positions taken.

(e) *Disposition of motions.* Except as provided in paragraph (c) of this section for rulings on motions made at a hearing, the law judge shall pass upon all motions properly addressed to him, unless he finds that a prompt decision by the Board is essential to the proper conduct of the proceeding, in which case he may refer such motion to the Board for decision.

(f) *Effect of pendency of motions.* Except as provided in §§ 821.17(a) and 821.18, the filing or pendency of a motion shall not automatically alter or extend the time fixed in this part (or any extension granted thereunder) to take action by the parties.

§ 821.15 Motion to disqualify a Board Member.

A motion requesting a Board Member to disqualify himself shall be filed with the Board, supported by an affidavit setting forth grounds for disqualification. In nonemergency pro-

ceedings, where an appeal from an initial decision is filed, such motion shall be filed on or before the date on which the reply brief is due, pursuant to § 821.48(d). In emergency proceedings, where a notice of appeal has been filed, such motion shall be filed on or before the date the reply brief is due, pursuant to § 821.57(b). Failure to file a timely motion shall be deemed a waiver of any claim of disqualification. Application for leave to file an untimely motion may be made, accompanied by an affidavit setting forth in detail why the facts relied upon as grounds for disqualification were not known and could not have been discovered with reasonable diligence within the prescribed time.

§ 821.16 Appeals from law judge's interlocutory rulings and motions.

Rulings of law judges on motions may not be appealed to the Board prior to its consideration of the entire proceeding, except in extraordinary circumstances and with the consent of the law judge who made the ruling. An appeal shall be disallowed unless the law judge finds, either on the record or in writing, that to allow such an appeal is necessary to prevent substantial detriment to the public interest or undue prejudice to any party. If an appeal is allowed, any party may file a brief with the Board within such time as the law judge directs. No oral argument will be heard unless the Board directs otherwise. The rulings of the law judge on motion may be reviewed by the Board in connection with its appellate action in the proceeding, irrespective of the filing of an appeal from the motion or any action taken thereon.

§ 821.17 Motion to dismiss and for judgment on the pleadings.

(a) *General.* A motion to dismiss may be filed within the time limitation for filing an answer, except as otherwise provided in paragraph (d) of this section. If the motion is not granted in its entirety, the answer shall be filed within 10 days of service of the law judge's order on the motion.

(b) *Judgment on the pleadings.* A party may file a motion for judgment on the pleadings where no answer has

been filed or where there are no issues to be resolved.

(c) *Appeal of dismissal orders and grants of motions for judgment on the pleadings.* When a law judge grants a motion for judgment on the pleadings or a motion to dismiss in lieu of an answer and terminates the proceeding without a hearing, an appeal of such order to the Board may be filed pursuant to the provisions of § 821.47. When a law judge grants a motion to dismiss in part, § 821.16 is applicable.

(d) *Motions to dismiss for lack of jurisdiction.* A motion to dismiss on the ground that the Board lacks jurisdiction may be made at any time.

[49 FR 28249, July 11, 1984]

§ 821.18 Motion for more definite statement.

(a) A party, in lieu of an answer, may file a motion requesting that the allegations in the complaint or the petition be made more definite and certain. The motion shall point out the defects complained of and the details desired. If the motion is granted and the law judge's order is not complied with within 15 days after notice, the law judge shall strike the allegation or allegations in any complaint or petition to which the motion is directed. If the motion is denied, the moving party shall file an answer within 10 days after the denial.

(b) A party may file a motion to clarify an answer in the event that it fails to respond clearly either to the complaint or to the petition for review. Such a motion may be granted at the discretion of the law judge.

[49 FR 28246, July 11, 1984]

§ 821.19 Depositions and other discovery.

(a) *Initiation of discovery.* After a petition for review or a complaint is filed, any party may take the testimony of any person, including a party, by deposition, upon oral examination or written questions, without seeking prior Board approval. Reasonable notice shall be given in writing to the other parties of record stating the name of the witness and the time and place of the taking of the deposition. A copy of any notice of deposition

shall be served on the Office of Administrative Law Judges. In other respects, the taking of any deposition shall be in compliance with the provisions of section 1004 of the Act.

(b) *Exchange of information by parties.* At any time before hearing, after the assignment of a proceeding to a law judge has been made in accordance with § 821.35(a), at the instance of either party, the parties or their representatives may exchange information, such as witness lists, exhibit lists, curricula vitae and bibliographies of expert witnesses, and other data. In the event of a dispute, the law judge may issue an order directing compliance with any ruling he has made in respect to discovery. A party may also serve written interrogatories on the opposing party. A copy of any such interrogatories shall be served on the law judge assigned to the proceeding.

(c) *Use of the Federal Rules of Civil Procedure.* Those portions of the Federal Rules of Civil Procedure that pertain to depositions and discovery may be used as a general guide for discovery practice in proceedings before the Board where appropriate. The Federal Rules and the case law that construes them shall be considered by the Board and its law judges as instructive rather than controlling.

[49 FR 28250, July 11, 1984]

§ 821.20 Subpoenas, witness fees, and appearances of Board Members, officers, or employees.

(a) *Subpoenas.* Subpoenas requiring the attendance of witnesses or the production of documentary or tangible evidence for the purpose of taking depositions or at a hearing may be issued by the chief law judge prior to the assignment of a law judge, or by the law judge to whom the case is assigned, upon application by any party. The application shall show the general relevance and reasonable scope of the evidence sought. Any person upon whom a subpoena is served may, within 7 days after service but in any event prior to the return date thereof, file with the chief law judge or the law judge, as the case may be, a motion to quash or modify the subpoena, and such filing shall stay the subpoena

pending final action by the chief law judge or the law judge on the motion.

(b) *Witness fees.* Witnesses shall be entitled to the same fees and mileage as are paid to witnesses in the courts of the United States. The fees shall be paid by the party at whose instance the witness is subpoenaed or appears.

(c) *Board Members, officers, or employees.* The provisions of paragraph (a) of this section are not applicable to Board Members, officers, or employees, or to the production of documents in their custody. Applications for the attendance of such persons or the production of such documents at a hearing or deposition shall be addressed to the chief law judge or the law judge, as the case may be, in writing, and shall set forth the need of the moving party for such evidence and its relevancy to the issues in the proceeding.

§ 821.21 Official notice.

Where the law judge or the Board intends to take official notice of a material fact not appearing in the evidence in the record, notice shall be given to all parties, who may within 10 days file a petition challenging such fact. Upon the filing of such petition, the party or parties shall be given reasonable opportunity to controvert the fact.

Subpart C—Special Rules Applicable to Proceedings Under Section 602(b) of the Act

§ 821.24 Initiation of proceedings.

(a) *Petition for review.* Where the Administrator has denied an application for the issuance or renewal of an airman certificate, the applicant may file with the Board a petition for review of the Administrator's action. Such petition shall be filed within 60 days from the time of service on the petitioner of the Administrator's action. The petition shall contain a short, plain statement of the facts on which petitioner's case rests and a statement of the action requested. The petition may be filed in the form of a letter to the Board signed by the aggrieved party.

(b) *Filing petition with the Board.* The petition for review shall be filed

with the Board and the date of filing shall be determined in the same manner as prescribed by § 821.7(a) for other documents.

(c) *Answer to petition.* The Administrator shall file an answer to the petition for review within 20 days of service upon him by the petitioner of the petition for review. Failure to deny the truth of any allegation or allegations of the petition may be deemed an admission of the truth of the allegation or allegations not answered.

(d) *Stay of proceeding pending petition for exemption.* Where the petitioner has filed with the Administrator a petition for exemption under the provisions of the Federal Aviation Regulations, he may request that the Board hold his petition in abeyance pending final action on his petition for exemption, or for 180 days from the date of issuance of the Administrator's denial, whichever occurs first. In the event that a petitioner fails to request a hearing during the 180-day period extending from the date of issuance of the Administrator's denial, he is returned to the status of an applicant for airman medical certification and must follow the procedures set forth in 14 CFR Part 67. Pending a stay of proceedings, further pleadings are stayed.

(e) *New Evidence.* In the event that a petitioner has undergone medical testing or medical evaluation, in addition to the testing and evaluation that has already been submitted to the Administrator, and wishes to introduce the results of that further medical testing or medical evaluation into the record, petitioner may do so provided that the new medical evidence is served upon the Administrator at least 30 days prior to the date of hearing.

[40 FR 30243, July 17, 1975, as amended at 43 FR 60473, Dec. 28, 1978; 49 FR 28250, July 11, 1984]

§ 821.25 Burden of proof.

In proceedings under section 602(b) of the Act, the burden of proof shall be upon the petitioner.

§ 821.26 Motion to dismiss petition for review for lack of standing.

Upon motion by the Administrator within the time limitation for filing an

answer, a petition for review shall be dismissed for lack of standing in either of the following instances:

(a) If the petitioner's certificate at the time of the denial or renewal thereof was under an order of suspension; or

(b) If the petitioner's certificate had been revoked within one year of the date of the denial or renewal thereof, unless the order revoking such certificate provided otherwise.

Subpart D—Special Rules Applicable to Proceedings Under Section 609 of the Act

§ 821.30 Initiation of proceedings.

(a) *Appeal.* A certificate holder may file with the Board an appeal from an order of the Administrator amending, modifying, suspending, or revoking a certificate. Such appeal shall be filed with the Board within 20 days from the time of service of the order, along with proof of service upon the Administrator.

(b) *Contents.* Each appeal shall contain a concise but complete statement of the facts relied upon and the relief sought. It shall identify the Administrator's order and the certificate affected and shall recite the Administrator's action from which the appeal is sought. It shall likewise contain proof of service upon the Administrator.

(c) *Effect of timely appeal with the Board.* Timely filing with the Board of an appeal from an order of the Administrator shall postpone the effective date of the order until final disposition of the appeal by the law judge or the Board, except in emergency proceedings.

§ 821.31 Complaint procedure.

(a) *Filing, time of filing, and service upon respondent.* The order of the Administrator from which an appeal has been taken shall serve as the complaint. The complaint shall be filed by the Administrator with the Board within 5 days after the notice of appeal has been filed upon the Administrator. The complaint shall be accompanied by the Administrator's proof of service upon respondent.

(b) *Contents of complaint.* If the Administrator claims that respondent lacks qualification as an airman, the order filed as the complaint, or an accompanying statement shall recite on which of the facts pleaded this contention is based.

(c) *Answer to complaint.* The respondent shall file an answer to the complaint within 20 days of service of the complaint upon him by the Administrator. Failure to deny the truth of any allegation or allegations in the complaint may be deemed an admission of the truth of the allegation or allegations not answered. Respondent's answer shall also include any affirmative defense that respondent intends to raise at the hearing. A respondent may amend his answer to include any affirmative defense in accordance with the requirements of § 821.12(a). In the discretion of the law judge, any affirmative defense not so pleaded may be deemed waived.

[40 FR 30243, July 17, 1975, as amended at 49 FR 28250, July 11, 1984]

§ 821.32 Burden of proof.

In proceedings under section 609 of the Act, the burden of proof shall be upon the Administrator.

§ 821.33 Motion to dismiss stale complaint.

Where the complaint states allegations of offenses which occurred more than 6 months prior to the Administrator's advising respondent as to reasons for proposed action under section 609 of the Act, respondent may move to dismiss such allegations pursuant to the following provisions:

(a) In those cases where a complaint does not allege lack of qualification of the certificate holder:

(1) The Administrator shall be required to show by answer filed within 7 days of service of the motion that good cause existed for the delay, or that the imposition of a sanction is warranted in the public interest, notwithstanding the delay or the reasons therefor.

(2) If the Administrator does not establish good cause for the delay or for imposition of a sanction notwithstanding the delay, the law judge shall dismiss the stale allegations and proceed

to adjudicate only the remaining portion, if any, of the complaint.

(3) If the law judge wishes some clarification as to the Administrator's factual assertions of good cause, he shall obtain this from the Administrator in writing, with due service made upon the respondent, and proceed to an informal determination of the good cause issue without a hearing. A hearing to develop facts as to good cause shall be held only where the respondent raises an issue of fact in respect of the Administrator's good cause issue allegations.

(b) In those cases where the complaint alleges lack of qualification of the certificate holder:

(1) The law judge shall first determine whether an issue of lack of qualification would be presented if any or all of the allegations, stale and timely, are assumed to be true. If not, the law judge shall proceed as in paragraph (a) of this section.

(2) If the law judge deems that an issue of lack of qualification would be presented by any or all of the allegations, if true, he shall proceed to a hearing on the lack of qualification issue only, and he shall so inform the parties. The respondent shall be put on notice that he is to defend against lack of qualification and not merely against a proposed remedial sanction.

Subpart E—Law Judges

§ 821.35 Assignment, duties, and powers.

(a) *Assignment of law judge and duration of assignment.* The chief law judge shall assign a law judge to preside over the proceeding. Until such assignment, motions, requests, and documents shall be addressed to the chief law judge. Thereafter, all such motions, requests, and documents shall be addressed to the law judge assigned. The authority of the law judge shall terminate upon certification of the record to the Board, or upon expiration of the period within which appeals from initial decisions may be filed, or upon the law judge's withdrawal from the proceeding upon considering himself disqualified.

(b) *Powers of law judges.* Law judges shall have the following powers:

(1) To give notice of and to hold pre-hearing conferences and hearings and to consolidate proceedings which involve a common question of law or fact;

(2) To administer oaths and affirmations;

(3) To examine witnesses;

(4) To issue subpoenas and to take or cause depositions to be taken;

(5) To receive evidence and rule upon objections and offers of proof;

(6) To rule upon motions in assigned cases;

(7) To regulate the conduct of the hearing;

(8) To hold conferences, before or during the hearing for the settlement or simplification of issues;

(9) To dispose of procedural requests or similar matters; and

(10) To make initial decisions, and, if so directed by the Board, to certify records with or without recommended decisions.

(c) *Disqualification of a law judge.* A law judge shall withdraw from the proceedings if at any time he deems himself disqualified. If, prior to the initial decision, there is filed an affidavit of personal bias or disqualifications, with substantiating facts, and the law judge does not withdraw, the Board will determine the matter as a part of the record and decision in the proceeding, if an appeal from the law judge's initial decision is filed. The Board will not otherwise consider any claim of bias or disqualification as to the law judge's assignment to conduct the hearing. The Board, in its discretion, may order a hearing on a charge of bias or disqualification.

Subpart F—Hearings

§ 821.37 Notice of hearing.

(a) *Notice.* The chief law judge or the law judge to whom the case is assigned shall set the date, time, and place for the hearing at a reasonable date, time and place, and shall give the parties adequate notice at least 30 days in advance thereof, and of the nature of the hearing. In the event that the parties stipulate to an earlier hearing date, and the law judge to whom the case is assigned agrees, to a date less than 30 days in advance of

the date upon which notice of hearing is given, a hearing date less than 30 days after the date of notice may be set by the law judge. Due regard shall be given to the convenience of the parties with respect to the place of the hearing. The location of the majority of the witnesses and the suitability of a site served by a scheduled air carrier are factors to be considered in setting the place for the hearing. Due regard shall be given to any need for discovery in setting the hearing date.

(b) *Hearings in several sessions.* Where appropriate, the law judge may determine that a hearing will be held in one or more sessions at the same or different places.

[40 FR 30243, July 17, 1975, as amended at 49 FR 28250, July 11, 1984]

§ 821.38 Evidence.

Every party shall have the right to present his case or defense by oral or documentary evidence, to submit evidence in rebuttal, and to conduct such cross-examination as may be required for a full and true disclosure of the facts.

§ 821.39 Argument and submissions.

At the hearing, the law judge shall give the parties adequate opportunity for the presentation of arguments in support of, or in opposition to, motions, objections, and rulings. Prior to the initial decision, the parties shall be afforded a reasonable opportunity to submit for consideration proposed findings and conclusions and supporting reasons therefor.

§ 821.40 Record.

The transcript of testimony and exhibits, together with all papers, requests, and rulings filed in the proceeding shall constitute the exclusive record of the proceeding. The record shall also include any proceeding upon an affidavit of personal bias or disqualification of a law judge. Copies of the transcript may be obtained by any party upon payment of the reasonable cost thereof. A copy may be examined at the National Transportation Safety Board Public Reference Room No. 806D, at 800 Independence Ave., S.W., Washington, D.C. 20594.

§ 821.41 Certification to the Board.

At any time prior to the close of the hearing, the Board may direct the law judge to certify any question or the entire record in the proceeding to the Board for decision, except an interlocutory ruling. In cases where the record is certified to the Board, the law judge shall not render an initial decision but shall only recommend to the Board a decision as provided in 5 U.S.C. 557 (Administrative Procedure).

Subpart G—Initial Decision

§ 821.42 Initial decision by law judge.

(a) *Written or oral decision.* The law judge may render his initial decision orally at the close of the hearing, or he may render such decision in writing at a later date, except as provided in § 821.56(b).

(b) *Contents.* The initial decision shall include a statement of findings and conclusions, and the grounds therefor, upon all material issues of fact, credibility of witnesses, law, or discretion presented on the record, the appropriate order, and the reasons therefor.

(c) *Service of written decision and extension of time for appeal.* If the initial decision is in writing, it shall be served upon the parties. At any time before the date for filing an appeal from the initial decision has passed, the law judge or the Board may, for good cause shown, extend the time within which to file an appeal from the initial decision, and the law judge may also reopen the case for good cause upon notice to the parties.

(d) *Furnishing copy of oral decision and issuance date.* If the initial decision is rendered orally, a copy thereof, excerpted from the transcript of the record, shall be furnished the parties by the Office of Administrative Law Judges. Irrespective of the date of mailing of such copy, the issuance date of the decision shall be the actual date of the rendering of the oral decision.

§ 821.43 Effect of law judge's initial decision, and filing an appeal therefrom.

If an appeal from the initial decision is not timely filed with the Board by

either party, or the Board on its own initiative does not decide within 20 days after the issuance of the initial decision to review it, the initial decision shall become final. However, the initial decision shall not be deemed to be a precedent binding on the Board. The timely review by the Board or the filing of such an appeal or motion shall stay the order in the initial decision.

Subpart H—Appeals from Initial Decisions

§ 821.47 Notice of appeal.

A party may appeal from a law judge's order or from the initial decision by filing with the Board and serving upon the other parties (pursuant to § 821.8) a notice of appeal within 10 days after an oral initial decision has been rendered or a written decision or an order has been served.

§ 821.48 Briefs and oral argument.

(a) *Appeal briefs.* Each appeal must be perfected within 50 days after an oral initial decision has been rendered, or 30 days after service of a written initial decision, by filing with the Board and serving on the other party a brief in support of the appeal. Appeals may be dismissed by the Board on its own initiative or on motion of the other party, in cases where a party who has filed a notice of appeal fails to perfect his appeal by filing a timely brief.

(b) *Contents of appeal brief.* Each appeal brief shall set forth in detail the objections to the initial decision, and shall state whether such objections are related to alleged errors in the law judge's findings of fact and conclusions or alleged errors in his order. It shall also state the reasons for such objections and the relief requested.

(c) *Waiver of objections on appeal.* Any error contained in the initial decision which is not objected to may be deemed to have been waived. Where any objection is based upon evidence of record, such objection need not be considered by the Board unless specific record citations to the pertinent evi-

dence are furnished in the appeal brief.

(d) *Reply brief.* A brief in reply to the appeal brief may be filed by the other party within 30 days after the appeal brief has been served upon him. A copy of the reply brief shall be served upon the party who has appealed from the initial decision. Where the reply brief relies upon evidence of record, specific record citations to the pertinent evidence shall be furnished in the reply brief.

(e) *Other briefs.* No further briefs may be filed, except upon specific leave of the Board upon a showing of good cause therefor.

(f) *Number of copies.* Five copies of briefs shall be filed with the Board.

(g) *Oral argument.* Oral argument before the Board will normally not be held in proceedings under this part. However, when need therefor appears, the Board may permit oral argument, either on its own initiative or on motion of a party.

[40 FR 30248, July 17, 1975, as amended at 49 FR 28250, July 11, 1984]

§ 821.49 Issues on appeal.

On appeal, the Board will consider only the following issues:

(a) Are the findings of fact each supported by a preponderance of reliable, probative, and substantial evidence?

(b) Are conclusions made in accordance with precedent and policy?

(c) Are the questions on appeal substantial?

(d) Have any prejudicial errors occurred?

If the Board determines that the law judge erred in any respect or that his order in his initial decision should be changed, the Board may make any necessary findings and may issue an order in lieu of the law judge's order, or may remand the case for such purposes as the Board may deem necessary. The Board on its own initiative may raise any issue, the resolution of which it deems important to a proper disposition of the proceedings, in which event a reasonable opportunity shall be afforded to the parties to submit argument thereon.

§ 821.50 Petitions for rehearing, reargument, reconsideration, or modification of an order of the Board.

(a) *General.* Any party to a proceeding may petition for rehearing, reargument, reconsideration, or modification of a Board order on appeal from an initial decision. Initial decisions which have become final because they were not appealed from shall not be deemed orders for this purpose.

(b) *Form and number of copies.* The petition shall be in writing. Five copies shall be filed with the Board and a copy shall be served upon each of the parties within 30 days after service of the Board's order on appeal from the initial decision.

(c) *Contents.* The petition shall state briefly and specifically the matters of record alleged to have been erroneously decided, the ground or grounds relied upon, and the relief sought. If the petition is based, in whole or in part, on allegations as to the consequences that would result from the order of the Board, the basis of such allegations shall be set forth. If the petition is based, in whole or in part, upon new matter, it shall set forth such new matter and shall contain affidavits of prospective witnesses, authenticated documents, or both, or an explanation why such substantiation is unavailable, and shall explain why such new matter could not have been discovered by the exercise of due diligence prior to the date of the hearing.

(d) *Grounds for dismissal.* Repetitious petitions will not be entertained by the Board and will be summarily dismissed.

(e) *Reply to petition.* Within 10 days after the service of the petition upon an adverse party, he may reply thereto by filing a copy of the reply with the Board, with proof of service upon the petitioner.

(f) *Stay of effective date of order.* The filing of a petition under this section shall operate to stay the effective date of the Board order, unless otherwise ordered by the Board.

**Subpart I—Rules Applicable to
Emergency Proceedings****§ 821.54 General.**

(a) *Applicability.* These rules shall apply to any order issued by the Administrator as an emergency order, or any order issued by the Administrator not designated as an emergency order, which is later amended to be an emergency order, as provided in section 609 of the Act, in cases where the respondent appeals or has appealed to the Board therefrom.

(b) *Effective date of emergency.* The procedure set forth herein shall apply as of the date when the Administrator's written advice of the emergency character of his order has been received by the Office of Administrative Law Judges or by the Board.

(c) *Computation of time.* Time shall be computed in accordance with § 821.10, including the provision that Saturdays, Sundays, and legal holidays of the Board shall always be counted in the computation.

§ 821.55 Appeal, complaint, answer to the complaint, and motions.

(a) *Time within which to appeal.* Within 10 days after the service of the Administrator's emergency order on the certificate holder, he may file an appeal therefrom to the Board.

(b) *Form and content of appeal.* The appeal may be in the form of a letter to the Board signed by the aggrieved party. It shall identify the Administrator's order and the certificate affected, shall recite the Administrator's action from which the appeal is taken, and shall identify the issues of fact or law on which the appeal is based and the relief sought.

(c) *Complaint.* Within 3 days after receipt of the appeal by the Board, the Administrator shall file with the Board his emergency order as his complaint and serve a copy upon the respondent.

(d) *Answer to the complaint.* Within 5 days after service of the complaint upon respondent, he shall file his answer thereto. Failure to deny any allegation or allegations of the complaint may be deemed an admission of

the allegation or allegations not answered.

(e) *Motion to dismiss and motion for more definite statement.* No motion to dismiss or for a more definite statement shall be made, but the substance thereof may be stated in the respondent's answer. The law judge may permit or require a more definite statement or other amendment to any pleading at the hearing, upon good cause shown and upon just and reasonable terms.

§ 821.56 Hearing and initial decision.

(a) *Notice of hearing.* Immediately upon notification by the Administrator to the Board that an emergency exists, the date and place for hearing shall be set upon notice to the parties. The hearing shall be set for a date no later than 7 days after the issuance of the notice of hearing.

(b) *Initial decision.* The initial decision shall be made orally on the record at the termination of the hearing and after opportunity for oral argument. The provisions of § 821.42 (b) and (d) shall be applicable, (covering content, furnishing a copy of the initial decision excerpted from the record, and issuance date).

(c) *Conduct of hearing.* The provisions of §§ 821.38, 821.39, and 821.40, covering evidence, argument and submissions, and record, shall be applicable.

(d) *Effect of law judge's initial decision.* If no appeal to the Board by either party, by motion or otherwise, is filed within the time allowed, the law judge's initial decision shall become final but shall not be deemed to be a precedent binding on the Board.

§ 821.57 Procedure on appeal.

(a) *Time within which to file a notice of appeal and content.* Within 2 days after the initial decision has been orally rendered, either party to the proceeding may appeal therefrom by filing with the Board and serving upon the other parties a notice of appeal. The time limitations for the filing of documents are not extended by the unavailability of the hearing transcript.

(b) *Briefs and oral argument.* Within 5 days after the filing of the notice of appeal, the appellant shall file a brief with the Board and serve a copy upon the other parties. Within 10 days after service of the appeal brief, a reply brief may be filed with the Board in which case a copy shall be served upon the other parties. The briefs shall comply with the requirements of § 821.48 (b), (c), (d), (e), (f), and (g), covering contents, waiver of objections on appeal, reply brief, other briefs, number of copies, and oral argument. Appeals may be dismissed by the Board on its own initiative or on motion of the other party, in cases where a party who has filed a notice of appeal fails to perfect his appeal by filing a timely brief. When a request for oral argument is granted, the Board will give 3 days' notice of such oral argument.

(c) *Issues on appeal.* The provisions of § 821.49 shall apply to issues on appeal. However, the Board may on its own initiative raise any issue, the resolution of which it deems important to a proper disposition of the proceeding. In such case, not more than 2 days shall be afforded to the parties to submit argument thereon.

(d) *Petitions for reconsideration, rehearing, reargument, or modification of order.* The only petitions for reconsideration, rehearing, reargument, or modification of an order which the Board will entertain are petitions based on the ground that new matter has been discovered. Such petitions must set forth the following:

- (1) The new matter;
- (2) Affidavits of prospective witnesses, authenticated documents, or both, or an explanation of why such substantiation is unavailable; and
- (3) A statement that such new matter could not have been discovered by the exercise of due diligence prior to the date the case was submitted to the Board.

[40 FR 30243, July 17, 1975, as amended at 49 FR 28250, July 11, 1984]

Subpart J—Ex Parte Communications

AUTHORITY: Sec. 4, Government in the Sunshine Act, Pub. L. 94-409, amending 5 U.S.C. 552(d) and 5 U.S.C. 557; Title VI,

Federal Aviation Act of 1958, as amended, 49 U.S.C. 1421 et seq.; Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2166 (49 U.S.C. 1901 et seq.).

SOURCE: 42 FR 21613, Apr. 28, 1977, unless otherwise noted.

§ 821.60 Definitions.

As used in this subpart:

"Board decisional employee" means a Board Member, administrative law judge, or other employee who is or who may reasonably be expected to be involved in the decisional process of the proceeding;

"Ex parte communication" means an oral or written communication not on the public record with respect to which reasonable prior notice to all parties is not given, but it shall not include requests for status reports on any matter or proceeding covered by this part.

§ 821.61 Prohibited ex parte communications.

(a) The prohibitions of this section shall apply from the time a proceeding is noticed for hearing unless the person responsible for the communication has knowledge that it will be noticed, in which case the prohibitions shall apply at the time of the acquisition of such knowledge.

(b) Except to the extent required for the disposition of ex parte matters as authorized by law:

(1) No interested person outside the Board shall make or knowingly cause to be made to any Board employee an ex parte communication relevant to the merits of the proceeding;

(2) No Board employee shall make or knowingly cause to be made to any interested person outside the Board an ex parte communication relevant to the merits of the proceeding.

Ex parte communications regarding solely matters of board procedure or practice are not prohibited by this section.

§ 821.62 Procedures for handling ex parte communication.

A Board employee who receives or who makes or knowingly causes to be made a communication prohibited by

National Transportation Safety Board

§ 825.5

§ 821.61 shall place on the public record of the proceeding:

(a) All such written communications;
(b) Memoranda stating the substance of all such oral communications; and

(c) All written responses, and memoranda stating the substance of all oral responses, to the materials described in paragraphs (a) and (b) of this section.

§ 821.63 Requirement to show cause and imposition of sanction.

(a) Upon receipt of a communication knowingly made or knowingly caused to be made by a party in violation of § 821.61, the Board, administrative law judge, or other employee presiding at the hearing may, to the extent consistent with the interests of justice and the policy of the underlying statutes, require the party to show cause why his or her claim or interest in the proceeding should not be dismissed, denied, disregarded, or otherwise adversely affected on account of such violation.

(b) The Board may, to the extent consistent with the interests of justice and the policy of the underlying statutes administered by the Board, consider a violation of this subpart sufficient grounds for a decision adverse to a party who has knowingly committed such violation or knowingly caused such violation to occur.

Subpart K—Judicial Review of Board Orders

§ 821.64 Judicial review.

Judicial review of a final order of the Board may be sought as provided in section 1006 of the Act (49 U.S.C. 1406) and section 304(d) of the Independent Safety Board Act of 1974 (49 U.S.C. 1903(d)) by the filing of a petition for review within 60 days of the date of entry of the Board Order. The date of entry of the Board Order is the date on which the order is served.

[49 FR 28251, July 11, 1984]

PART 825—RULES OF PROCEDURE FOR MERCHANT MARINE APPEALS FROM DECISIONS OF THE COMMANDANT, U.S. COAST GUARD

Sec.

- 825.1 Applicability.
- 825.5 Notice of appeal.
- 825.10 Referral of record.
- 825.15 Issues on appeal.
- 825.20 Briefs in support of appeal.
- 825.25 Oral argument.
- 825.30 Action by the Board.
- 825.35 Action after remand.
- 825.40 Ex parte communications.

AUTHORITY: Sec. 304(a)(9)(B), Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2169 (49 U.S.C. 1903(a)(9)(B)), unless otherwise noted.

SOURCE: 40 FR 30248, July 17, 1975, unless otherwise noted.

§ 825.1 Applicability.

The provisions of this part govern all proceedings before the National Transportation Safety Board (Board) on appeals taken from decisions, on or after April 1, 1975, of the Commandant, U.S. Coast Guard, sustaining orders of an administrative law judge, revoking, suspending, or denying a license, certificate, document, or register in proceedings under:

(a) R.S. 4450, as amended (46 U.S.C. 239);

(b) Act of July 15, 1954 (46 U.S.C. 239a-b); or

(c) Section 4, Great Lakes Pilotage Act (46 U.S.C. 216(b)).

§ 825.5 Notice of appeal.

(a) A party may appeal from the Commandant's decision sustaining an order of revocation, suspension, or denial of a license, certificate, document, or register in proceedings described in § 825.1, by filing a notice of appeal with the Board within 10 days after service of the Commandant's decision upon the party or his designated attorney. Upon good cause shown, the time for filing may be extended.

(b) Notice of appeal shall be addressed to the Docket Clerk, National Transportation Safety Board, Washington, D.C. 20594. At the same time, a copy shall be served on the Commandant (GL), U.S. Coast Guard, Washington, D.C. 20590.

(c) The notice of appeal shall state the name of the party, the number of the Commandant's decision, and, in brief, the grounds for the appeal.

§ 825.10 Referral of record.

Upon receipt of a notice of appeal, the Commandant shall immediately transmit to the Board the complete record of the hearing upon which his decision was based. This includes the charges, the transcript of testimony, and hearing proceedings (including exhibits), briefs filed by the party, the decision of the administrative law judge, and the Commandant's decision on appeal. It does not include intra-agency staff memoranda provided as advice to the Commandant to aid in his decision.

§ 825.15 Issues on appeal.

The only issues that may be considered on appeal are:

- (a) A finding of a material fact is erroneous;
- (b) A necessary legal conclusion is without governing precedent or is a departure from or contrary to law or precedent;
- (c) A substantial and important question of law, policy, or discretion is involved; or
- (d) A prejudicial procedural error has occurred.

§ 825.20 Briefs in support of appeal.

- (a) Within 20 days after the filing of a notice of appeal, the appellant must file, in the same manner as prescribed for the notice in § 825.5, a brief in support of the appeal.
- (b) This document shall set forth:
 - (1) The name and address of the appellant;
 - (2) The number and a description of the license, certificate, document, or register involved;
 - (3) A summary of the charges affirmed by the Commandant as proved;
 - (4) Fact findings by the Commandant disputed by the appellant;
 - (5) Specific statements of errors of laws asserted;
 - (6) Specific statements of any abuse of discretion asserted; and
 - (7) The relief requested.
- (c) Objection based upon evidence of record need not be considered unless

the appeal contains specific record citation to the pertinent evidence.

(d) When a brief has been filed by appellant under this section, the Coast Guard may, within 15 days of service of the brief on the Commandant, submit to the Board a reply brief.

(e) If a party who has filed a notice of appeal does not perfect the appeal by the timely filing of an appeal brief, the Board may dismiss the appeal on its own initiative or on motion of the Coast Guard.

§ 825.25 Oral argument.

(a) If any party desires to argue a case orally before the Board, he should request leave to make such argument in his brief filed pursuant to § 825.20.

(b) Oral argument before the Board will normally not be granted unless the Board finds good cause for such argument. If granted, the parties will be advised of the date.

§ 825.30 Action by the Board.

(a) On review by the Board, if no reversible error is found in the Commandant's decision on appeal, that decision will be affirmed.

(b) On review by the Board, if reversible error is found in the Commandant's decision on appeal, the Board may:

- (1) Set aside the entire decision and dismiss the charges if it finds the error incurable; or
- (2) Set aside the order, or conclusions, or findings of the Commandant and remand the case to him for further consideration if it finds the error curable.
- (c) When a matter has been remanded to the Commandant under paragraph (b) of this section, the Commandant may act in accordance with the terms of the order of remand, or he may, as appropriate, further remand the matter to the administrative law judge of the Coast Guard who heard the case, or to another administrative law judge of the Coast Guard, with appropriate directions.

§ 825.35 Action after remand.

When a case has been remanded under § 825.30, a party shall retain all

rights of review under 46 CFR Part 5 and this part, as applicable.

§ 825.40 Ex parte communications.

(a) As used in this section:

"Board decisional employee" means a Board Member or employee who is or who may reasonably be expected to be involved in the decisional process of the proceeding;

"Ex parte communication" means an oral or written communication not on the public record with respect to which reasonable prior notice to all parties is not given, but it shall not include requests for status reports on any matter or proceeding covered by this part.

(b) The prohibition of paragraph (c) of this section shall apply from the time a proceeding is noticed for hearing unless the person responsible for the communication has knowledge that it will be noticed, in which case the prohibition shall apply at the time of the acquisition of such knowledge.

(c) Except to the extent required for the disposition of ex parte matters as authorized by law:

(1) No interested person outside the Board shall make or knowingly cause to be made to any Board employee an ex parte communication relevant to the merits of the proceeding;

(2) No Board employee shall make or knowingly cause to be made to any interested person outside the Board an ex parte communication relevant to the merits of the proceeding.

Ex parte communications regarding solely matters of Board procedure or practice are not prohibited by this paragraph.

(d) A Board employee who receives or who makes or knowingly causes to be made a communication prohibited by paragraph (c) of this section, shall place on the public record of the proceeding:

(1) All such written communications;

(2) Memoranda stating the substance of all such oral communication; and

(3) All written responses, and memoranda stating the substance of all oral responses, to materials described in paragraphs (d) (1) and (2) of this section.

(e) Upon receipt of a communication knowingly made or caused to be made in violation of paragraph (c) of this section, the Board may, to the extent consistent with the interests of justice and the policy of the underlying statutes, require the party to show cause why his or her interest in the proceeding should not be dismissed, denied, disregarded, or otherwise adversely affected on account of such violation.

(f) The Board may, to the extent consistent with the interests of justice and the policy of the underlying statutes administered by the Board, consider a violation of this section sufficient grounds for a decision adverse to a party who has knowingly committed such violation or knowingly caused such violation to occur.

(Sec. 4, Government in the Sunshine Act, Pub. L. 94-409, amending 5 U.S.C. 552 (d) and 5 U.S.C. 557; Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2106 (40 U.S.C. 1901 et seq.))

[42 FR 21614, Apr. 28, 1977]

PART 826—RULES IMPLEMENTING THE EQUAL ACCESS TO JUSTICE ACT OF 1980

Subpart A—General Provisions

Sec.

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- 826.2 When the Act applies.
- 826.3 Proceedings covered.
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- 826.36 Further proceedings.
- 826.37 Decision.
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- 826.39 Judicial review.
- 826.40 Payment of award.

AUTHORITY: Sec. 203(a)(1), Pub. L. 96-481, 94 Stat. 2325 (5 U.S.C. 504 (c)(1)).

SOURCE: 46 FR 48309, Oct. 1, 1981, unless otherwise noted.

Subpart A—General Provisions

§ 826.1 Purpose of these rules.

The Equal Access to Justice Act, 5 U.S.C. 504 (the Act), provides for the award of attorney fees and other expenses to eligible individuals and entities who are parties to certain administrative proceedings (adversary adjudications) before the National Transportation Safety Board (Board). An eligible party may receive an award when it prevails over the Federal Aviation Administration (FAA), unless the Government agency's position in the proceeding was substantially justified or special circumstances make an award unjust. The rules in this part describe the parties eligible for awards and the proceedings that are covered. They also explain how to apply for awards, and the procedures and standards that this Board will use to make them. As used hereinafter, the term "agency" applies to the FAA.

§ 826.2 When the Act applies.

The Act applies to any adversary adjudication identified in § 826.3 as covered under the Act that is pending before the Board at any time between October 1, 1981, and September 30, 1984. This includes proceedings begun before October 1, 1981, if final Board action has not been taken before that date, and proceedings pending on September 30, 1984, regardless of when they were initiated or when final Board action occurs.

§ 826.3 Proceedings covered.

(a) The Act applies to certain adversary adjudications conducted by the Board. These are adjudications under 5 U.S.C. 554 in which the position of the FAA is presented by an attorney or other representative who enters an appearance and participates in the

proceeding. Proceedings to grant or renew certificates or documents, hereinafter referred to as "licenses," are excluded, but proceedings to modify, suspend, or revoke licenses are covered if they are otherwise "adversary adjudications." For the Board, the type of proceeding covered includes aviation enforcement cases appealed to the Board under section 609 of the Federal Aviation Act (49 U.S.C. 1429).

(b) The Board may also designate a proceeding not listed in paragraph (a) as an adversary adjudication for purposes of the Act by so stating in an order initiating the proceeding or designating the matter for hearing. The Board's failure to designate a proceeding as an adversary adjudication shall not preclude the filing of an application by a party who believes the proceeding is covered by the Act; whether the procedure is covered will then be an issue for resolution in proceedings on the application.

(c) If a proceeding includes both matters covered by the Act and matters specifically excluded from coverage, any award made will include only fees and expenses related to covered issues.

§ 826.4 Eligibility of applicants.

(a) To be eligible for an award of attorney fees and other expenses under the Act, the applicant must be a party to the adversary adjudication for which it seeks an award. The term "party" is defined in 5 U.S.C. 551(3). The applicant must show that it meets all conditions of eligibility set out in this subpart and in subpart B.

(b) The types of eligible applicants are as follows:

(1) An individual with a net worth of not more than \$1 million;

(2) The sole owner of an unincorporated business who has a net worth of not more than \$5 million, including both personal and business interests, and not more than 500 employees;

(3) A charitable or other tax-exempt organization described in section 501(c)(3) of the Internal Revenue Code (26 U.S.C. 501(c)(3)) with not more than 500 employees;

(4) A cooperative association as defined in section 15(a) of the Agricul-

tural Marketing Act (12 U.S.C. 1141j(a)) with not more than 500 employees; and

(5) Any other partnership, corporation, association, or public or private organization with a net worth of not more than \$5 million and not more than 500 employees.

(c) For the purpose of eligibility, the net worth and number of employees of an applicant shall be determined as of the date the proceeding was initiated.

(d) An applicant who owns an unincorporated business will be considered an "individual" rather than a "sole owner of an unincorporated business" if the issues on which the applicant prevails are related primarily to personal interests rather than to business interests.

(e) The employees of an applicant include all persons who regularly perform services for remuneration for the applicant, under the applicant's direction and control. Part-time employees shall be included on a proportional basis.

(f) The net worth and number of employees of the applicant and all of its affiliates shall be aggregated to determine eligibility. Any individual, corporation, or other entity that directly or indirectly controls or owns a majority of the voting shares or other interest of the applicant, or any corporation or other entity of which the applicant directly or indirectly owns or controls a majority of the voting shares or other interest, will be considered an affiliate for purposes of this part, unless the administrative law judge determines that such treatment would be unjust and contrary to the purposes of the Act in light of the actual relationship between the affiliated entities. In addition, the administrative law judge may determine that financial relationships of the applicant other than those described in this paragraph constitute special circumstances that would make an award unjust.

(g) An applicant that participates in a proceeding primarily on behalf of one or more other persons or entities that would be ineligible is not itself eligible for an award.

§ 826.5 Standards for awards.

(a) A prevailing applicant may receive an award for fees and expenses incurred in connection with a proceeding, or in a significant and discrete substantive portion of the proceeding, unless the position of the agency over which the applicant has prevailed was substantially justified. The burden of proof that an award should not be made to an eligible prevailing applicant is on the agency counsel, who may avoid an award by showing that the agency's position was reasonable in law and fact.

(b) An award will be reduced or denied if the applicant has unduly or unreasonably protracted the proceeding or if special circumstances make the award sought unjust.

§ 826.6 Allowable fees and expenses.

(a) Awards will be based on rates customarily charged by persons engaged in the business of acting as attorneys, agents, and expert witnesses, even if the services were made available without charge or at a reduced rate to the applicant.

(b) No award for the fee of an attorney or agent under these rules may exceed \$75 per hour. No award to compensate an expert witness may exceed the highest rate at which the agency pays expert witnesses. However, an award may also include the reasonable expenses of the attorney, agent, or witness as a separate item, if the attorney, agent, or witness ordinarily charges clients separately for such expenses.

(c) In determining the reasonableness of the fee sought for an attorney, agent, or expert witness, the administrative law judge shall consider the following:

(1) If the attorney, agent, or witness is in private practice, his or her customary fee for similar services, or if an employee of the applicant, the fully allocated cost of the services;

(2) The prevailing rate for similar services in the community in which the attorney, agent, or witness ordinarily performs services;

(3) The time actually spent in the representation of the applicant;

(4) The time reasonably spent in light of the difficulty or complexity of the issues in the proceeding; and

(5) Such other factors as may bear on the value of the services provided.

(d) The reasonable cost of any study, analysis, engineering report, test, project, or similar matter prepared on behalf of a party may be awarded, to the extent that the charge for the service does not exceed the prevailing rate for similar services, and the study or other matter was necessary for preparation of the applicant's case.

§ 826.7 Rulemaking on maximum rates for attorney fees.

(a) If warranted by an increase in the cost of living or by special circumstances (such as limited availability of attorneys qualified to handle certain types of proceedings), the Board may adopt regulations providing that attorney fees may be awarded at a rate higher than \$75 per hour in some or all of the types of proceedings covered by this part. The Board will conduct any rulemaking proceedings for this purpose under the informal rulemaking procedures of the Administrative Procedure Act.

(b) Any person may file with the Board a petition for rulemaking to increase the maximum rate for attorney fees. The petition should identify the rate the petitioner believes the Board should establish and the types of proceedings in which the rate should be used. It should also explain fully the reasons why the higher rate is warranted. The Board will respond to the petition within 60 days after it is filed, by initiating a rulemaking proceeding, denying the petition, or taking other appropriate action.

§ 826.8 Awards against the Federal Aviation Administration.

When an applicant is entitled to an award because it prevails over an agency of the United States that participates in a proceeding before the Board and takes a position that is not substantially justified, the award shall be made against that agency.

Subpart B—Information Required From Applicants

§ 826.21 Contents of application.

(a) An application for an award of fees and expenses under the Act shall identify the applicant and the proceeding for which an award is sought. The application shall show that the applicant has prevailed and identify the position of the agency in the proceeding that the applicant alleges was not substantially justified. Unless the applicant is an individual, the application shall also state the number of employees of the applicant and describe briefly the type and purpose of its organization or business.

(b) The application shall also include a statement that the applicant's net worth does not exceed \$1 million (if an individual) or \$5 million (for all other applicants, including their affiliates). However, an applicant may omit this statement if:

(1) It attaches a copy of a ruling by the Internal Revenue Service that it qualifies as an organization described in section 501(c)(3) of the Internal Revenue Code (26 U.S.C. 501(c)(3)), or in the case of a tax-exempt organization not required to obtain a ruling from the Internal Revenue Service on its exempt status, a statement that describes the basis for the applicant's belief that it qualifies under such section; or

(2) It states that it is a cooperative association as defined in section 15(a) of the Agricultural Marketing Act (12 U.S.C. 1141(a)).

(c) The application shall state the amount of fees and expenses for which an award is sought.

(d) The application may also include any other matters that the applicant wishes this agency to consider in determining whether and in what amount an award should be made.

(e) The application shall be signed by the applicant or an authorized officer or attorney for the applicant. It shall also contain or be accompanied by a written verification under oath or under penalty of perjury that the information provided in the application is true and correct.

§ 826.22 Net worth exhibit.

(a) Each applicant except a qualified tax-exempt organization or cooperative association must provide with its application a detailed exhibit showing the net worth of the applicant and any affiliates (as defined in § 826.4(f) of this part) when the proceeding was initiated. The exhibit may be in any form convenient to the applicant that provides full disclosure of the applicant's and its affiliates' assets and liabilities and is sufficient to determine whether the applicant qualifies under the standards in this part. The administrative law judge may require an applicant to file additional information to determine the eligibility for an award.

(b) Ordinarily, the net worth exhibit will be included in the public record of the proceeding. However, an applicant that objects to public disclosure of information in any portion of the exhibit and believes there are legal grounds for withholding it from disclosure may submit that portion of the exhibit directly to the administrative law judge in a sealed envelope labeled "Confidential Financial Information," accompanied by a motion to withhold the information from public disclosure. The motion shall describe the information sought to be withheld and explain, in detail, why it falls within one or more of the specific exemptions from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552(b)(1)-(9), why public disclosure of the information would adversely affect the applicant, and why disclosure is not required in the public interest. The material in question shall be served on counsel representing the agency against which the applicant seeks an award, but need not be served on any other party to the proceeding. If the administrative law judge finds that the information should not be withheld from disclosure, it shall be placed in the public record of the proceeding. Otherwise, any request to inspect or copy the exhibit shall be disposed of in accordance with the Board's established procedures under the Freedom of Information Act as implemented by Part 801 of the Board's rules.

§ 826.23 Documentation of fees and expenses.

The application shall be accompanied by full documentation of the fees and expenses, including the cost of any study, analysis, engineering report, test, project or similar matter, for which an award is sought. A separate itemized statement shall be submitted for each professional firm or individual whose services are covered by the application, showing the hours spent in connection with the proceeding by each individual, a description of the specific services performed, the rate at which each fee has been computed, any expenses for which reimbursement is sought, the total amount claimed, and the total amount paid or payable by the applicant or by any other person or entity for the services provided. The administrative law judge may require the applicant to provide vouchers, receipts, or other substantiation for any expenses claimed.

§ 826.24 When an application may be filed.

(a) An application may be filed whenever the applicant has prevailed in the proceeding, but in no case later than 30 days after the Board's final disposition of the proceeding.

(b) If review or reconsideration is sought or taken of a decision to which an applicant believes it has prevailed, proceedings for the award of fees shall be stayed pending final disposition of the underlying controversy.

(c) For purposes of this rule, final disposition means the later of (1) the date on which an unappealed initial decision by an administrative law judge becomes administratively final; (2) issuance of an order disposing of any petitions for reconsideration of the Board's final order in the proceeding; (3) if no petition for reconsideration is filed, the last date on which such a petition could have been filed; or (4) issuance of a final order or any other final resolution of a proceeding, such as a settlement or voluntary dismissal, which is not subject to a petition for reconsideration.

**Support C—Procedures for
Considering Applications**

§ 826.31 Filing and service of documents.

Any application for an award or other pleading or document related to an application shall be filed and served on all parties to the proceeding in the same manner as other pleadings in the proceeding, except as provided in § 826.22(b) for confidential financial information.

§ 826.32 Answer to application.

(a) Within 30 days after service of an application, counsel representing the agency against which an award is sought may file an answer to the application. Unless agency counsel requests an extension of time for filing or files a statement of intent to negotiate under paragraph (b) of this section, failure to file an answer within the 30-day period may be treated as a consent to the award requested.

(b) If agency counsel and the applicant believe that the issues in the fee application can be settled, they may jointly file a statement of their intent to negotiate a settlement. The filing of this statement shall extend the time for filing an answer for an additional 30 days, and further extensions may be granted by the administrative law judge upon request by agency counsel and the applicant.

(c) The answer shall explain in detail any objections to the award requested and identify the facts relied on in support of agency counsel's position. If the answer is based on any alleged facts not already in the record of the proceeding, agency counsel shall include with the answer either supporting affidavits or a request for further proceedings under § 826.36.

§ 826.33 Reply.

Within 15 days after service of an answer, the applicant may file a reply. If the reply is based on any alleged facts not already in the record of the proceeding, the applicant shall include with the reply either supporting affidavits or a request for further proceedings under § 826.36.

§ 826.34 Comments by other parties.

Any party to a proceeding other than the applicant and agency counsel may file comments on an application within 30 days after it is served or on an answer within 15 days after it is served. A commenting party may not participate further in proceedings on the application unless the administrative law judge determines that the public interest requires such participation in order to permit full exploration of matters raised in the comments.

§ 826.35 Settlement.

The applicant and agency counsel may agree on a proposed settlement of the award before final action on the application, either in connection with a settlement of the underlying proceeding, or after the underlying proceeding has been concluded. If a prevailing party and agency counsel agree on a proposed settlement of an award before an application has been filed, the application shall be filed with the proposed settlement.

§ 826.36 Further proceedings.

(a) Ordinarily the determination of an award will be made on the basis of the written record; however, on request of either the applicant or agency counsel, or on his or her own initiative, the administrative law judge assigned to the matter may order further proceedings, such as an informal conference, oral argument, additional written submissions, or an evidentiary hearing. Such further proceedings shall be held only when necessary for full and fair resolution of the issues arising from the application and shall be conducted as promptly as possible.

(b) A request that the administrative law judge order further proceedings under this section shall specifically identify the information sought or the disputed issues and shall explain why the additional proceedings are necessary to resolve the issues.

§ 826.37 Decision.

The administrative law judge shall issue an initial decision on the application within 60 days after completion of proceedings on the application. The decision shall include written findings

and conclusions on the applicant's eligibility and status as a prevailing party and an explanation of the reasons for any difference between the amount requested and the amount awarded. The decision shall also include, if at issue, findings on whether the agency's position was substantially justified, whether the applicant unduly protracted the proceedings, or whether special circumstances make an award unjust.

§ 826.38 Board review.

Either the applicant or agency counsel may seek review of the initial decision on the fee application, or the Board may decide to review the decision on its own initiative, in accordance with Subpart H of Part 821 for FAA safety enforcement matters appealed under Section 609 of the Federal Aviation Act. If neither the applicant nor agency counsel seeks review and the Board does not take review on its own initiative, the initial decision on the application shall become a final decision of the Board 30 days after it is issued. Whether to review a decision is a matter within the discretion of the Board. If review is taken, the Board will issue a final decision on the application or remand the application to the administrative law judge who issued the initial fee award determination for further proceedings.

§ 826.39 Judicial review.

Judicial review of final Board decisions on awards may be sought as provided in 5 U.S.C. 504(c)(2).

§ 826.40 Payment of award.

An applicant seeking payment of an award shall submit to the disbursing official of the FAA a copy of the Board's final decision granting the award, accompanied by a statement that the applicant will not seek review of the decision in the United States courts. Applications for award grants in cases involving the FAA shall be sent to: The Office of Accounting and Audit, AAA-1, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, D.C. 20591. The agency will pay the amount awarded to the applicant within 60 days, unless judicial review of the

award or of the underlying decision of the adversary adjudication has been sought by the applicant or any other party to the proceeding.

PART 830—NOTIFICATION AND REPORTING OF AIRCRAFT ACCIDENTS OR INCIDENTS AND OVERDUE AIRCRAFT, AND PRESERVATION OF AIRCRAFT WRECKAGE, MAIL, CARGO, AND RECORDS

Subpart A—General

Sec.

830.1 Applicability.

830.2 Definitions.

Subpart B—Initial Notification of Aircraft Accidents, Incidents, and Overdue Aircraft

830.5 Immediate notification.

830.6 Information to be given in notification.

Subpart C—Preservation of Aircraft Wreckage, Mail, Cargo, and Records

830.10 Preservation of aircraft wreckage, mail, cargo, and records.

Subpart D—Reporting of Aircraft Accidents, Incidents, and Overdue Aircraft

830.15 Reports and statement to be filed.

AUTHORITY: Title VII, Federal Aviation Act of 1958, as amended, 72 Stat. 781, as amended by 76 Stat. 921 (49 U.S.C. 1441 et seq.), and the Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2106 (49 U.S.C. 1901 et seq.).

SOURCE: 45 FR 59895, Sept. 11, 1980, unless otherwise noted.

Subpart A—General

§ 830.1 Applicability.

This part contains rules pertaining to:

(a) Notification and reporting aircraft accidents and incidents and certain other occurrences in the operation of aircraft when they involve civil aircraft of the United States wherever they occur, or foreign civil aircraft when such events occur in the United States, its territories or possessions.

(b) Preservation of aircraft wreckage, mail, cargo, and records involving

all civil aircraft in the United States, its territories or possessions.

§ 830.2 Definitions.

As used in this part the following words or phrases are defined as follows:

"Aircraft accident" means an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.

"Fatal injury" means any injury which results in death within 30 days of the accident.

"Incident" means an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.

"Operator" means any person who causes or authorizes the operation of an aircraft, such as the owner, lessee, or bailee of an aircraft.

"Serious injury" means any injury which: (1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received; (2) results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves any internal organ; or (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

"Substantial damage" means damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowlings, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered "substantial damage" for the purpose of this part.

[45 FR 59895, Sept. 11, 1980, as amended at 50 FR 11168, Mar. 20, 1985]

Subpart E—Initial Notification of Aircraft Accidents, Incidents, and Overdue Aircraft

§ 830.5 Immediate notification.

The operator of an aircraft shall immediately, and by the most expeditious means available, notify the nearest National Transportation Safety Board (Board), field office¹ when:

(a) An aircraft accident or any of the following listed incidents occur:

- (1) Flight control system malfunction or failure;
- (2) Inability of any required flight crewmember to perform normal flight duties as a result of injury or illness;
- (3) Failure of structural components of a turbine engine excluding compressor and turbine blades and vanes;
- (4) In-flight fire; or
- (5) Aircraft collide in flight.

(b) An aircraft is overdue and is believed to have been involved in an accident.

[45 FR 59895, Sept. 11, 1980; 45 FR 65243, Oct. 2, 1980]

§ 830.6 Information to be given in notification.

The notification required in § 330.5 shall contain the following information, if available:

- (a) Type, nationality, and registration marks of the aircraft;
- (b) Name of owner, and operator of the aircraft;
- (c) Name of the pilot-in-command;
- (d) Date and time of the accident;
- (e) Last point of departure and point of intended landing of the aircraft;
- (f) Position of the aircraft with reference to some easily defined geographical point;

¹The National Transportation Safety Board field offices are listed under U.S. Government in the telephone directories in the following cities: Anchorage, Alaska; Atlanta, Ga.; Chicago, Ill.; Denver, Colo.; Fort Worth, Tex.; Kansas City, Mo.; Los Angeles, Calif.; Miami, Fla.; New York, N.Y.; Seattle, Wash.

(g) Number of persons aboard, number killed, and number seriously injured;

(h) Nature of the accident, the weather and the extent of damage to the aircraft, so far as is known; and

(i) A description of any explosives, radioactive materials, or other dangerous articles carried.

Subpart C—Preservation of Aircraft Wreckage, Mail, Cargo, and Record

§ 830.10 Preservation of aircraft wreckage, mail, cargo, and records.

(a) The operator of an aircraft involved in an accident or incident for which notification must be given is responsible for preserving to the extent possible any aircraft wreckage, cargo, and mail aboard the aircraft, and all records, including all recording mediums of flight, maintenance, and voice recorders, pertaining to the operation and maintenance of the aircraft and to the airmen until the Board takes custody thereof or a release is granted pursuant to § 831.10(b).

(b) Prior to the time the Board or its authorized representative takes custody of aircraft wreckage, mail, or cargo, such wreckage, mail, or cargo may not be disturbed or moved except to the extent necessary:

(1) To remove persons injured or trapped;

(2) To protect the wreckage from further damage; or

(3) To protect the public from injury.

(c) Where it is necessary to move aircraft wreckage, mail or cargo, sketches, descriptive notes, and photographs shall be made, if possible, of the original position and condition of the wreckage and any significant impact marks.

(d) The operator of an aircraft involved in an accident or incident shall retain all records, reports, internal documents, and memoranda dealing with the accident or incident, until authorized by the Board to the contrary.

Subpart D—Reporting of Aircraft Accidents, Incidents, and Overdue Aircraft

§ 830.15 Reports and statements to be filed.

(a) *Reports.* The operator of an aircraft shall file a report on Board Form 6120.1 (OMB No. 3147-005) or Board Form 7120.2 (OMB No. 3147-0001)² within 10 days after an accident, or after 7 days if an overdue aircraft is still missing. A report on an incident for which notification is required by § 830.5(a) shall be filed only as requested by an authorized representative of the Board.

(b) *Crewmember statement.* Each crewmember, if physically able at the time the report is submitted, shall attach a statement setting forth the facts, conditions, and circumstances relating to the accident or incident as they appear to him. If the crewmember is incapacitated, he shall submit the statement as soon as he is physically able.

(c) *Where to file the reports.* The operator of an aircraft shall file any report with the field office of the Board nearest the accident or incident.

[45 FR 59895, Sept. 11, 1980, as amended at 47 FR 773, Jan. 7, 1982]

PART 831—AIRCRAFT ACCIDENT/INCIDENT INVESTIGATION PROCEDURES

Sec.

831.1 Applicability of part.

831.2 Responsibility of Board.

831.3 Authority of Directors.

831.4 Nature of investigation.

831.5 Request to withhold information.

831.6 Right of representation.

831.7 Investigator-in-charge.

831.8 Authority of Board representatives.

831.9 Parties to the field investigation.

831.10 Access to and release of aircraft wreckage, records, mail, and cargo.

831.11 Flow and dissemination of accident information.

²Forms are obtainable from the Board field offices (see footnote 1), the National Transportation Safety Board, Washington, D.C. 20594, and the Federal Aviation Administration, Flight Standards District Office.

Sec.

§ 831.12 Proposed findings.

AUTHORITY: Title VII, Federal Aviation Act of 1958, as amended, 72 Stat. 781, as amended by 76 Stat. 921 (49 U.S.C. 1441 et seq.); and the Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2166 et seq. (49 U.S.C. 1901 et seq.).

SOURCE: 44 FR 34418, June 14, 1979, unless otherwise noted.

§ 831.1 Applicability of part.

Unless otherwise specifically ordered by the National Transportation Safety Board (Board), the provisions of this part shall govern all aircraft accident or incident investigations, conducted under the authority of title VII of the Federal Aviation Act of 1958, as amended, and the Independent Safety Board Act of 1974. Rules applicable to aircraft accident hearings and reports are set forth in Part 845.

§ 831.2 Responsibility of Board.

(a) The Board is responsible for the organization, conduct and control of all accident investigations involving civil aircraft, or civil and military aircraft, within the United States, its territories and possessions. It is also responsible for investigation of accidents which occur outside the United States, and which involve U.S. civil aircraft or civil and military aircraft, at locations determined to be not in the territory of another state (i.e., in international waters).

(b) Certain field investigations are conducted by the Federal Aviation Administration (FAA), pursuant to a request to the Secretary of the Department of Transportation, effective February 10, 1977 (see appendix to Part 800 of this chapter),¹ but the Board determines the probable cause of such accidents. Under no circumstances shall investigations conducted by the Board be considered joint investigations in the sense of sharing responsibility. However, in the case of an accident or incident involving civil aircraft of U.S. registry or manufacture in a

foreign state which is a signator to Annex 13 to the Chicago Convention of the International Civil Aviation Organization, the state of occurrence is responsible for the investigation. If it occurs in a foreign state which is not bound by the provisions of Annex 13 to the Chicago Convention, the conduct of the investigation shall be in consonance with any agreement entered into between the United States and the foreign state.

§ 831.3 Authority of Directors.

The Director, Bureau of Accident Investigation, or the Director, Bureau of Field Operations, subject to the provisions of § 831.2, may order an investigation into any accident or incident involving a civil aircraft.

[49 32852, Aug. 17, 1984]

§ 831.4 Nature of investigation.

Aircraft accident or incident investigations are conducted by the Board in order to determine the facts, conditions, and circumstances relating to each accident or incident and the probable cause thereof and to ascertain measures which will best tend to prevent similar accidents or incidents in the future. The investigation includes the field investigation, report preparation, and, where ordered, the public hearing.

§ 831.5 Request to withhold information.

Any person may make written objection to the public disclosure of information contained in any report or document filed, or of information obtained by the Board, stating the grounds for such objection. The Board, on its own initiative or if such objection is made, may order such information withheld from public disclosure when, in its judgment, the information can be withheld under the provisions of an exemption to the Freedom of Information Act (Pub. L. 93-592, amending 5 U.S.C. 552) and its release is not found to be in the public interest (see Part 801).

§ 831.6 Right of representation.

Any person interrogated by an authorized representative of the Board during the field investigation shall be

¹The authority of a representative of the Federal Aviation Administration during such field investigations shall be the same as that of a Board investigator under this part.

accorded the right to be accompanied, represented, or advised by counsel or by any other duly qualified representative.

§ 831.7 Investigator-in-charge.

The designated investigator-in-charge organizes, conducts, and controls the field phase of investigation. He shall assume responsibility for the supervision and coordination of all resources and of the activities of all personnel, both Board and non-Board, involved in the onsite investigation.

§ 831.8 Authority of Board representatives.

Upon demand of an authorized representative of the Board and presentation of credentials issued to such representative, any Government agency, air carrier, airman, or person engaged in air commerce or in any phase of aeronautics, and any other person having possession or control of any aircraft, aircraft engine, propeller, appliance, air navigation facility, equipment, or any pertinent records and memoranda, including all documents, papers, and correspondence now or hereafter existing and kept or required to be kept, shall forthwith permit inspection, photographing, or copying thereof by such authorized representative for the purpose of investigating an aircraft accident, overdue aircraft, study, or investigation pertaining to safety in air navigation or the prevention of accidents. Authorized representatives of the Board may interrogate any person having knowledge relevant to an aircraft accident/incident, overdue aircraft, study, or special investigation.

§ 831.9 Parties to the field investigation.

(a) The investigator-in-charge may, on behalf of the Director, Bureau of Accident Investigation, or the Director, Bureau of Field Operations, designate parties to participate in the field investigation. Parties to the field investigation shall be limited to those persons, government agencies, companies, and associations whose employees, functions, activities, or products were involved in the accident or incident and who can provide suitable

qualified technical personnel to actively assist in the field investigation.

(b) Participants in the field investigation shall be responsive to the direction of the appropriate Board representative and may be relieved from participation if they do not comply with their assigned duties or if they conduct themselves in a manner prejudicial to the investigation.

(c) No party to the field investigation designated under § 831.9(a) shall be represented by any person who also represents claimants or insurers. Failure to comply with this provision shall result in loss of status as a party.

(d) Section 701(g) of the Federal Aviation Act of 1958, as amended, provides for the appropriate participation of the Administrator in Board investigations. Thus, the FAA will normally be a party to field investigations and will have the same rights and privileges and be subject to the same limitations as other parties.

[44 FR 34418, June 14, 1979, as amended at 49 FR 32852, Aug. 17, 1984]

§ 831.10 Access to and release of aircraft wreckage, records, mail, and cargo.

(a) Only the Board's accident investigation personnel and persons authorized by the investigator-in-charge, the Director, Bureau of Accident Investigation, or the Director, Bureau of Field Operations to participate in any particular investigation, examination or testing shall be permitted access to aircraft wreckage, records, mail, or cargo which is in the Board's custody.

(b) Aircraft wreckage, records, mail, and cargo in the Board's custody shall be released by an authorized representative of the Board when it is determined that the Board has no further need of such wreckage, mail, cargo, or records.

[44 FR 34418, June 14, 1979, as amended at 49 FR 32853, Aug. 17, 1984]

§ 831.11 Flow and dissemination of accident information.

(a) Release of information during the field investigation, particularly at the accident scene, shall be limited to factual developments, and shall be made only through the Board Member present at the accident scene, the rep-

representative of the Board's Office of Public Affairs, or the investigator-in-charge.

(b) All information concerning the accident or incident obtained by any personnel participating in the field investigation shall be passed to the investigator-in-charge, through appropriate channels. Upon approval of the investigator-in-charge, parties to the investigation may relay to their respective organization information which is necessary for purposes of prevention or remedial action. Under no circumstances shall accident information be released to, or discussed with, unauthorized persons whose knowledge thereof might adversely affect the investigation.

§ 831.12 Proposed findings.

Any person, Government agency, company, or association whose employees, functions, activities, or products were involved in an accident under investigation may submit to the Board, prior to its determination of probable cause, proposed findings to be drawn from the evidence produced during the course of the accident investigation, a proposed probable cause, and proposed safety recommendations designed to prevent future accidents.

[48 FR 52740, Nov. 22, 1983]

PART 835—TESTIMONY OF BOARD EMPLOYEES

Sec.

835.1 Purpose.

835.2 Definitions.

835.3 Scope of permissible testimony.

835.4 Use of reports.

835.5 Manner in which testimony is given.

835.6 Request for testimony.

835.7 Testimony of former Board employees.

835.8 Procedure in the event of a subpoena.

835.9 Testimony in State or local investigations.

AUTHORITY: Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2166 (49 U.S.C. 1901 et seq.); and Title VII, Federal Aviation Act of 1958, as amended (49 U.S.C. 1441).

SOURCE: 40 FR 30253, July 17, 1975, unless otherwise noted.

§ 835.1 Purpose.

This part prescribes the policies and procedures regarding the testimony of employees of the National Transportation Safety Board (Board) in suits or actions for damages and criminal proceedings arising out of transportation accidents.

§ 835.2 Definitions.

(a) "The Board's accident report" means the report containing the Board's determinations, including the probable cause of an accident, issued either as a narrative report or in a computer format (briefs of accidents). Pursuant to section 701(e) of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1441(e)) (FA Act) and section 304(c) of the Independent Safety Board Act of 1974 (49 U.S.C. 1903(c)) (Safety Act), no part of these reports may be admitted as evidence or used in any suit or action for damages growing out of any matter mentioned in such reports.

(b) "Factual accident report" means an investigator's report of his investigation of the accident.

(c) "Accident," for purposes of this part, includes "incident."

§ 835.3 Scope of permissible testimony.

(a) Section 701(e) of the FA Act and section 304(c) of the Safety Act preclude the use or admission into evidence of Board accident reports in any suit or action for damages arising from accidents. The purpose of these sections would be defeated if expert opinion testimony of Board employees, which is reflected in the ultimate views of the Board expressed in its report concerning the cause of an accident, were admitted in evidence or used in private litigation arising out of an accident. The Board relies heavily upon its investigators' opinions in determining the cause or probable cause of an accident, and the investigators' opinions thus become inextricably entwined in the Board's determination. Furthermore, the use of Board employees as experts to give opinion testimony would impose a serious administrative burden on the Board's investigative staff. Litigants should obtain

their expert witnesses from other sources.

(b) Consistent with paragraph (a) of this section, Board employees may testify as to the factual information they obtained during the course of the accident investigation, including factual evaluations embodied in their factual accident reports. However, they shall decline to testify regarding matters beyond the scope of their investigation, or to give opinion testimony concerning the cause of the accident.

§ 835.4 Use of reports.

(a) A Board employee may use a copy of his factual accident report as a testimonial aid, and may refer to that report during his testimony or use it to refresh his memory.

(b) Consistent with section 701(e) of the FA Act and section 304(c) of the Safety Act, a Board employee may not use the Board's accident report for any purpose during his testimony.

§ 835.5 Manner in which testimony is given.

(a) Testimony of Board employees may be made available for use in actions or suits for damages arising out of accidents through depositions or written interrogatories. Board employees are not permitted to appear and testify in court in such actions.

(b) Normally, depositions will be taken and interrogatories answered at the Board's office to which the employee is assigned, and at a time arranged with the employee reasonably fixed to avoid substantial interference with the performance of his duties.

(c) Board employees are authorized to testify only once in connection with any investigation they have made of an accident. Consequently, when more than one lawsuit arises as a result of an accident, it shall be the duty of counsel seeking the employee's deposition to ascertain the identity of all parties to the multiple lawsuits and their counsel, and to advise them of the fact that a deposition has been granted, so that all interested parties may be afforded the opportunity to participate therein.

(d) Upon completion of the deposition of a Board employee, a copy of the transcript of the testimony will be

furnished, at the expense of the party requesting the deposition, to the Board's General Counsel for the Board's files.

§ 835.6 Request for testimony.

(a) A request for testimony of a Board employee relating to an accident by deposition or interrogatories shall be addressed to the General Counsel, who may approve or deny the request. Such request shall set forth the title of the case, the court, the type of accident (aviation, railroad, etc.), the date and place of the accident, the reasons for desiring the testimony, and a showing that the information desired is not reasonably available from other sources.

(b) The General Counsel shall attach to his approval such reasonable conditions as he may deem appropriate in order that the testimony will be limited to the matters delineated in § 835.3, will not interfere with the performance of the duties of the employees as set forth in § 835.5, and will otherwise conform to the policies of this part.

(c) A subpoena shall not be served upon a Board employee in connection with the taking of his deposition.

§ 835.7 Testimony of former Board employees.

It is not necessary to request Board approval for testimony of a former Board employee. However, the scope of testimony of former Board employees is limited to the matters delineated in § 835.3, and use of reports as prescribed by § 835.4.

§ 835.8 Procedure in the event of a subpoena.

(a) If a Board employee has received a subpoena to appear and testify, a request for his deposition shall not be approved until the subpoena has been withdrawn.

(b) Upon receipt of a subpoena, the employee shall immediately notify the General Counsel and provide the data identifying the accident; the title of the case, the name of the judge, if available, and the title and address of the court; the type of accident (aviation, railroad, etc.); the date on which

the employee is directed to appear; the name, address, and telephone number, if available, of the attorney representing the party who caused the issuance of the subpoena; the scope of the testimony, if known; and a statement as to whether a prior deposition on the same accident has been given.

(c) The General Counsel shall determine the course of action to be taken and will so advise the employee.

§ 835.9 Testimony in State or local investigations.

Board employees may testify at a coroner's inquest, grand jury, or criminal proceeding conducted by a State or local government. Testimony shall be limited to the matters delineated in § 835.3.

PART 840—RULES PERTAINING TO NOTIFICATION OF RAILROAD ACCIDENTS

Sec.

840.1 Applicability.

840.2 Definitions.

840.3 Notification of railroad accidents.

840.4 Information to be given in notification.

840.5 Inspection, examination and testing of physical evidence.

840.6 Priority of Board investigations.

AUTHORITY: Sec. 304(a)(1)(c), Independent Safety Board Act of 1974, as amended (49 U.S.C. 1903).

SOURCE: 41 FR 13925, Apr. 1, 1976, unless otherwise noted.

§ 840.1 Applicability.

This part contains the Safety Board's accident notification requirements, and its authority for inspection, examination, and testing of physical evidence, and describes the exercise of the Safety Board's priority accorded to its activities when investigating railroad accidents.

[47 FR 49408, Nov. 1, 1982]

§ 840.2 Definitions.

As used in this part, the following words or phrases are defined as follows:

(a) "Railroad" means any system of surface transportation of persons or property over rails. It includes, but is not limited to, line-haul freight and

passenger-carrying railroads, and rapid transit, commuter, scenic, subway, and elevated railways.

(b) "Accident" means any collision, derailment, or explosion involving railroad trains, locomotives, and cars; or any other loss-causing event involving the operation of such railroad equipment that results in a fatality to a passenger or employee, or the emergency evacuation of persons.

(c) "Joint operations" means rail operations conducted on a track used jointly or in common by two or more railroads subject to this part, or operation of a train, locomotive, or car by one railroad over the track of another railroad.

(d) "Fatality" means the death of a person either at the time an accident occurs or within 24 hours thereafter.

[41 FR 13925, Apr. 1, 1976, as amended at 47 FR 49408, Nov. 1, 1982]

§ 840.3 Notification of railroad accidents.

(a) A railroad shall notify the Board in the manner prescribed by paragraph (c) of this section at the earliest practical time but not later than six hours after the occurrence of an accident which results in:

(1) A passenger or employee fatality or serious injury to 2 or more crewmembers or passengers requiring admission to a hospital; or

(2) Damage (based on a preliminary gross estimate) of \$150,000 or more for repairs, or the current replacement cost, to railroad and nonrailroad property; or

(3) Damage of \$25,000 or more to a passenger train and nonrailroad property or involving evacuation of a passenger train; or

(4) Damage to a tank car or container resulting in release of hazardous materials or involving evacuation of the general public; or

(5) A fatality at a grade crossing.

(b) Accidents involving joint operations must be reported by the railroad that controls the track and directs the movement of trains where the accident has occurred.

(c) Each notification required by paragraph (a) of this section shall be made by (toll-free) telephone to the Board at Area Code 800-424-0201.

NOTE: The Federal Railroad Administration authorizes use of this telephone number to comply with its requirements for immediate reporting of certain railroad accidents/incidents under 49 CFR 225.9.

[41 FR 13925, Apr. 1, 1976, as amended at 45 FR 54056, Aug. 14, 1980; 47 FR 49408, Nov. 1, 1982]

§ 840.4 Information to be given in notification.

The notice required by § 840.3 shall include the following information:

- (a) Name and title of person reporting.
- (b) Name of railroad.
- (c) Location of accident (relate to nearest city).
- (d) Time and date of accident.
- (e) Description of accident.
- (f) Casualties:
 - (1) Fatalities.
 - (2) Injuries.
- (g) Property damage (estimate).
- (h) Name and telephone number of person from whom additional information may be obtained.

§ 840.5 Inspection, examination and testing of physical evidence.

(a) Any employee of the Safety Board, upon presenting appropriate credentials is authorized to enter any property wherein a transportation accident has occurred or wreckage from any such accident is located and do all things necessary for proper investigation, including examination or testing of any vehicle, rolling stock, track, or any part of any part of any such item when such examination or testing is determined to be required for purposes of such investigation.

(b) Any examination or testing shall be conducted in such a manner so as not to interfere with or obstruct unnecessarily the transportation services provided by the owner or operator of such vehicle, rolling stock, or track, and shall be conducted in such a manner so as to preserve, to the maximum extent feasible, any evidence relating to the transportation accident, consistent with the needs of the investigation and with the cooperation of such owner or operator. The employee may inspect, at reasonable times, records, files, papers, processes, controls, and facilities relevant to the investigation of such accident. Each in-

spection shall be commenced and completed promptly and the results of such inspection, examination, or test made available to the parties.

[47 FR 49408, Nov. 1, 1982]

§ 840.6 Priority of Board investigations.

Any investigation of an accident conducted by the Safety Board shall have priority over all other investigations of such accident conducted by other Federal agencies. The Safety Board shall provide for the appropriate participation by other Federal agencies in any such investigation, except that such agencies may not participate in the Safety Board's determination of the probable cause of the accident. Nothing in this section impairs the authority of other Federal agencies to conduct investigations of an accident under applicable provisions of law or to obtain information directly from parties involved in, and witnesses to, the transportation accident. The Safety Board and other Federal agencies shall assure that appropriate information obtained or developed in the course of their investigations is exchanged in a timely manner.

[47 FR 49408, Nov. 1, 1982]

PART 845—RULES OF PRACTICE IN TRANSPORTATION; ACCIDENT/INCIDENT HEARINGS AND REPORTS

Sec.

- 845.1 Applicability.
- 845.2 Nature of hearing.
- 845.3 Sessions open to the public.

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- 845.10 Determination to hold hearing.
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- 845.12 Notice of hearing.
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- 845.20 Powers of chairman of board of inquiry.
- 845.21 Hearing officer.
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Sec.

845.29 Payment of witnesses.

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845.40 Accident report.

845.41 Petitions for reconsideration or modification.

Subpart D—Public Record

845.50 Public docket.

845.51 Investigation to remain open.

AUTHORITY: Sec. 304(b), Independent Safety Board Act of 1974, Pub. L. 93-633, 88 Stat. 2169 (49 U.S.C. 1903(b)).

SOURCE: 44 FR 34419, June 14, 1979, unless otherwise noted.

§ 845.1 Applicability.

Unless otherwise specifically ordered by the National Transportation Safety Board (Board), the provisions of this part shall govern all transportation accident investigation hearings conducted under the authority of section 304(b) of the Independent Safety Board Act of 1974 (49 U.S.C. 1903(b)) and accident reports issued by the Board.

§ 845.2 Nature of hearing.

Transportation accident hearings are convened to assist the Board in determining cause or probable cause of an accident, in reporting the facts, conditions, and circumstances of the accident, and in ascertaining measures which will tend to prevent accidents and promote transportation safety. Such hearings are factfinding proceedings with no formal issues and no adverse parties and are not subject to the provisions of the Administrative Procedure Act (Pub. L. 89-554, 80 Stat. 384 (5 U.S.C. 554)).

[44 FR 34420, June 14, 1979; 44 FR 39181, July 5, 1979]

§ 845.3 Sessions open to the public.

(a) All hearings shall normally be open to the public (subject to the provision that any person present shall not be allowed at any time to interfere with the proper and orderly functioning of the board of inquiry).

(b) Sessions shall not be open to the public when evidence of a classified nature or which affects national security is to be received.

Subpart A—Initial Procedure

§ 845.10 Determination to hold hearing.

The Board may order a public hearing as part of an accident investigation whenever such hearing is deemed necessary in the public interest: *Provided*, that if a quorum of the Board is not immediately available in the event of a catastrophic accident, the determination to hold a public hearing may be made by the Chairman of the Board.

§ 845.11 Board of inquiry.

The board of inquiry shall consist of a Member of the Board who shall be chairman of the board of inquiry, and such other employees as may be designated by the chairman of the board of inquiry. Assignment of a Member to serve as the chairman of each board of inquiry shall be determined by the Board. The board of inquiry shall examine witnesses and secure, in the form of a public record, all known facts pertaining to the accident or incident and surrounding circumstances and conditions from which cause or probable cause may be determined and recommendations for corrective action may be formulated.

[49 FR 32853, Aug. 17, 1984]

§ 845.12 Notice of hearing.

The chairman of the board of inquiry shall designate a time and place for the hearing which meets the needs of the Board. Notice to all known interested persons shall be given.

§ 845.13 Designation of parties.

(a) The chairman of the board of inquiry shall designate as parties to the hearing those persons, agencies, companies, and associations whose participation in the hearing is deemed necessary in the public interest and whose special knowledge will contribute to the development of pertinent evidence.

(b) No party shall be represented by any person who also represents claimants or insurers. Failure to comply with this provision shall result in loss of status as a party.

Subpart B—Conduct of Hearing**§ 845.20 Powers of chairman of board of inquiry.**

The chairman of the board of inquiry, or his designee, shall have the following powers:

- (a) To designate parties to the hearing and revoke such designations;
- (b) To open, continue, or adjourn the hearing;
- (c) To determine the admissibility of and to receive evidence and to regulate the course of the hearing;
- (d) To dispose of procedural requests or similar matters; and
- (e) To take any other action necessary or incident to the orderly conduct of the hearing.

[44 FR 34420, June 14, 1979; 44 FR 39181, July 5, 1979]

§ 845.21 Hearing officer.

The hearing officer, upon designation by the Chairman of the Board, shall have the following powers:

- (a) To give notice concerning the time and place of hearing;
- (b) To administer oaths and affirmations to witnesses; and
- (c) To issue subpoenas requiring the attendance and testimony of witnesses and production of documents.

§ 845.22 Technical panel.

The Director, Bureau of Accident Investigation, or the Director, Bureau of Field Operations, shall designate members of the Board's technical staff to participate in the hearing and initially develop the testimony of witnesses.

[49 FR 32853, Aug. 17, 1984]

§ 845.23 Prehearing conference.

- (a) Except as provided in paragraph (d) of this section for expedited hearings, the chairman of the board of inquiry shall hold a prehearing conference with the parties to the hearing at a convenient time and place prior to the hearing. At such prehearing conference, the parties shall be advised of the witnesses to be called at the hearing, the areas in which they will be examined, and the exhibits which will be offered in evidence.

(b) Parties shall submit at the prehearing conference copies of any additional documentary exhibits they desire to offer. (Copies of all exhibits proposed for admission by the board of inquiry and the parties shall be furnished to the board of inquiry and to all parties, insofar as available at that time.)

(c) A party who, at the time of the prehearing conference, fails to advise the chairman of the board of inquiry of additional exhibits he intends to submit, or additional witnesses he desires to examine, shall be precluded from introducing such evidence unless the chairman of the board of inquiry determines for good cause shown that such evidence should be admitted.

(d) *Expedited hearings.* When time permits, the chairman of the board of inquiry may hold a prehearing conference. In the event that an expedited hearing is held, the requirements in paragraphs (b) and (c) of this section concerning the identification of witnesses, exhibits or other evidence may be waived by the chairman of the board of inquiry.

§ 845.24 Right of representation.

Any person who appears to testify at a public hearing shall be accorded the right to be accompanied, represented, or advised by counsel or by any other duly qualified representative.

§ 845.25 Examination of witnesses.

(a) Witnesses shall be initially examined by the board of inquiry or its technical panel. Following such examination, parties to the hearing shall be given the opportunity to examine such witnesses.

(b) Materiality, relevancy, and competency of witness testimony, exhibits, or physical evidence shall not be the subject of objections in the legal sense by a party to the hearing or any other person. Such matters shall be controlled by rulings of the chairman of the board of inquiry on his own motion. If the examination of a witness by a party is interrupted by a ruling of the chairman of the board of inquiry, opportunity shall be given to show materiality, relevancy, or compe-

tency of the testimony or evidence sought to be elicited from the witness.

§ 845.26 Evidence.

The chairman of the board of inquiry shall receive all testimony and evidence which may be of aid in determining the cause of accident. He may exclude any testimony or exhibits which are not pertinent to the investigation or are merely cumulative.

§ 845.27 Proposed findings.

Any party may submit proposed findings to be drawn from the testimony and exhibits, a proposed probable cause, and proposed safety recommendations designed to prevent future accidents. The proposals shall be submitted within the time specified by the presiding officer at the close of the hearing, and shall be made a part of the public docket. Parties to the hearing shall serve copies of their proposals on all other parties to the hearing.

[48 FR 52740, Nov. 22, 1983]

§ 845.28 Stenographic transcript.

A verbatim report of the hearing shall be taken. Copies of the transcript may be obtained by any interested person from the Board or from the court reporting firm preparing the transcript upon payment of the fees fixed therefor. (See Part 801, Appendix—Fee Schedule.)

§ 845.29 Payment of witnesses.

Any witness subpoenaed to attend the hearing under this part shall be paid such fees for his travel and attendance as shall be certified by the hearing officer.

Subpart C—Board Reports

§ 845.40 Accident report.

(a) The Board will issue a detailed narrative accident report in connection with the investigation into those accidents which the Board determines to warrant such a report. The report will set forth the facts, conditions and circumstances relating to the accident and the probable cause thereof, along with any appropriate recommendations formulated on the basis of the investigation.

(b) The probable cause and facts, conditions, and circumstances of all other accidents will be reported in a manner and form prescribed by the Board.

§ 845.41 Petitions for reconsideration or modification.

(a) Petitions for reconsideration or modification of the Board's findings and determination of probable cause filed by a party to an investigation or hearing or other person having a direct interest in the accident investigation will be entertained only if based on the discovery of new evidence or on a showing that the Board's findings are erroneous. The petitions shall be in writing. Petitions which are repetitions of proposed findings submitted pursuant to § 845.27, or of positions previously advanced, and petitions filed by a party to the hearing who failed to submit proposed findings pursuant to § 845.27 will not be entertained. Petitions based on the discovery of new matter shall: identify the new matter; contain affidavits of prospective witnesses, authenticated documents, or both, or an explanation of why such substantiation is unavailable; and state why the new matter was not available prior to Board's adoption of its findings. Petitions based on a claim of erroneous findings shall set forth in detail the grounds relied upon.

(b) When a petition for reconsideration or modification is filed with the Board, copies of the petition and any supporting documentation shall be served on all other parties to the investigation or hearing and proof of service shall be attached to the petition. The other parties may file comments no later than 90 days after service of the petition.

(c) Oral presentation before the Board normally will not form a part of proceedings under this part. However, the Board may permit oral presentation where a party or interested person makes an affirmative showing that the written petition for reconsideration or modification is an insufficient means to present the party's or person's position to the Board. Where oral presentation is allowed, the Board

will specify the issues to be addressed and all parties to the investigation or hearing will be given notice and the opportunity to participate.

[48 FR 52740, Nov. 22, 1983]

Subpart E—Public Record

§ 845.50 Public docket.

(a) The public docket shall include all factual information concerning the accident. Proposed findings submitted pursuant to §§ 831.12 or 845.27 and petitions for reconsideration and modification submitted pursuant to § 845.41, comments thereon by other parties, and the Board's rulings, shall also be placed in the public docket.

(b) The docket shall be established as soon as practicable following the accident, and material shall be added thereto as it becomes available. Where a hearing is held, the exhibits will be introduced into the record at the hearing.

(c) A copy of the docket shall be made available to any person for review at the Washington office of the Board. Copies of the material in the docket may be obtained, upon payment of the cost of reproduction, from the Public Inquiries Section, Bureau of Administration, National Transportation Safety Board, Washington, D.C. 20594.

[44 FR 34419, June 14, 1979, as amended at 48 FR 52740, Nov. 22, 1983]

§ 845.51 Investigation to remain open.

Accident investigations are never officially closed but are kept open for the submission of new and pertinent evidence by any interested person. If the Board finds that such evidence is relevant and probative, it shall be made a part of the docket and, where appropriate, parties will be given an opportunity to examine such evidence and to comment thereon.

PART 850—COAST GUARD—NATIONAL TRANSPORTATION SAFETY BOARD MARINE CASUALTY INVESTIGATIONS

Sec.

850.1 Purpose.

850.3 Relationship to Coast Guard marine investigation regulations and procedures.

850.5 Definitions.

850.10 Preliminary investigation by the Coast Guard.

850.15 Marine casualty investigation by the Board.

850.20 Cause or probable cause determinations from Board investigation.

850.25 Coast Guard marine casualty investigation for the Board.

850.30 Procedures for Coast Guard investigation.

850.35 Records of the Coast Guard and the Board.

AUTHORITY: Sec. 304(a)(1)(E), Independent Safety Board Act of 1974 (Pub. L. 93-633, 88 Stat. 2168, (49 U.S.C. 1903)).

SOURCE: 42 FR 61204, Dec. 1, 1977, unless otherwise noted.

§ 850.1 Purpose.

This part prescribes the joint regulations of the National Transportation Safety Board and the Coast Guard for the investigation of marine casualties.

[47 FR 46089, Oct. 15, 1982]

§ 850.3 Relationship to Coast Guard marine investigation regulations and procedures.

(a) The Coast Guard's responsibility to investigate marine casualties is not eliminated nor diminished by the regulations in this part.

(b) In those instances where the Board conducts an investigation in which the Coast Guard also has responsibility under R.S. 4450 (46 U.S.C. 239), the proceedings are conducted independently, but so as to avoid duplication as much as possible.

§ 850.5 Definitions.

As used in this part:

(a) "Act" means Title III of Pub. L. 93-633, the Independent Safety Board Act of 1974 (49 U.S.C. 1901, et seq.).

(b) "Board" means the National Transportation Safety Board.

(c) "Chairman" means the Chairman of the National Transportation Safety Board.

(d) "Commandant" means the Commandant of the Coast Guard.

(e) "Major marine casualty" means a casualty involving a vessel, other than a public vessel, that results in—

- (1) The loss of six or more lives;
- (2) The loss of a mechanically propelled vessel of 100 or more gross tons;
- (3) Property damage initially estimated as \$500,000 or more; or
- (4) Serious threat, as determined by the Commandant and concurred in by the Chairman, to life, property, or the environment by hazardous materials.

(f) "Public vessel" means a vessel owned by the United States, except a vessel to which the Act of October 25, 1919, c. 82 (41 Stat. 305, 46 U.S.C. 363) applies.

(g) "Vessel of the United States" means a vessel—

- (1) Documented, or required to be documented, under the laws of the United States;
- (2) Owned in the United States; or
- (3) Owned by a citizen or resident of the United States and not registered under a foreign flag.

§ 850.10 Preliminary investigation by the Coast Guard.

(a) The Coast Guard conducts the preliminary investigation of marine casualties.

(b) The Commandant determines from the preliminary investigation whether:

- (1) The casualty is a major marine casualty; or
- (2) The casualty involves a public and a nonpublic vessel and at least one fatality or \$75,000 in property damage; or
- (3) The casualty involves a Coast Guard and a nonpublic vessel and at least one fatality or \$75,000 in property damage; or

(4) The casualty is a major marine casualty which involves significant safety issues relating to Coast Guard safety functions, e.g., search and rescue, aids to navigation, vessel traffic systems, commercial vessel safety, etc.

(c) The Commandant notifies the Board of a casualty described in paragraph (b) of this section.

[42 FR 61204, Dec. 1, 1977, as amended at 47 FR 46089, Oct. 15, 1982]

§ 850.15 Marine casualty investigation by the Board.

(a) The Board may conduct an investigation under the Act of any major marine casualty or any casualty involving public and nonpublic vessels. Where the Board determines it will convene a hearing in connection with such an investigation, the Board's rules of practice for transportation accident hearings in 49 CFR Part 845 shall apply.

(b) The Board shall conduct an investigation under the Act when:

(1) The casualty involves a Coast Guard and a nonpublic vessel and at least one fatality or \$75,000 in property damage; or

(2) The Commandant and the Board agree that the Board shall conduct the investigation, and the casualty involves a public and a nonpublic vessel and at least one fatality or \$75,000 in property damage; or

(3) The Commandant and the Board agree that the Board shall conduct the investigation, and the casualty is a major marine casualty which involves significant safety issues relating to Coast Guard safety functions.

[47 FR 46090, Oct. 15, 1982]

§ 850.20 Cause or probable cause determinations from Board investigation.

After an investigation conducted by the Board under § 850.15, the Board determines cause or probable cause and issues a report of that determination.

§ 850.25 Coast Guard marine casualty investigation for the Board.

(a) If the Board does not conduct an investigation under § 850.15(a), (b)(2) or (3), the Coast Guard, at the request of the Board, may conduct an investigation under the Act unless there is an allegation of Federal Government misfeasance or nonfeasance.

(b) The Board will request the Coast Guard to conduct an investigation

under paragraph (a) of this section within 48 hours of receiving notice under § 850.10(c).

(c) The Coast Guard will advise the Board within 24 hours of receipt of a request under paragraph (b) of this section whether the Coast Guard will conduct an investigation under the Act.

[47 FR 48090, Oct. 15, 1982]

§ 850.30 Procedures for Coast Guard investigation.

(a) The Coast Guard conducts an investigation under § 850.25 using the procedures in 46 CFR 4.01-1 through 4.23-1.

(b) The Board may designate a person or persons to participate in every phase of an investigation, including on-scene investigation, that is conducted under the provisions of § 850.25.

(c) Consistent with Coast Guard responsibility to direct the course of the investigation, the person or persons designated by the Board under paragraph (b) of this section may:

(1) Make recommendations about the scope of the investigation.

(2) Call and examine witnesses.

(3) Submit or request additional evidence.

(d) The Commandant provides a record of the proceedings to the Board of an investigation of a major marine casualty under paragraph (a) of this section.

(e) The Board, under the Act, makes its determination of the facts, conditions, and circumstances, and the cause or probable cause of a major marine casualty, using the record of the proceedings provided by the Commandant under paragraph (d) of this section and any additional evidence the Board may acquire under its own authority.

(f) An investigation by the Coast Guard under this section is both an investigation under the Act and under R.S. 4450 (46 U.S.C. 239).

§ 850.35 Records of the Coast Guard and the Board.

(a) Records of the Coast Guard made under § 850.30 are available to the public under 49 CFR Part 7.

(b) Records of the Board made under §§ 850.20 and 850.30 are available to the public under 49 CFR Part 801.

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CHAPTER IX—UNITED STATES RAILWAY ASSOCIATION

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PART 901—ORGANIZATION, RULE-MAKING, AND PUBLIC INFORMATION

Sec.

901.1 Purpose.

901.2 Status and organization of the Association.

901.3 Rulemaking procedures.

901.4 Public availability of information.

AUTHORITY: Regional Rail Reorganization Act of 1973 (Pub. L. 93-2336, 87 Stat. 985; Pub. L. 93-502, 88 Stat. 1561).

SOURCE: 50 FR 39015, Sept. 26, 1985, unless otherwise noted.

§ 901.1 Purpose.

This part describes the organization of the Association, and its procedures for providing public access to information.

§ 901.2 Status and organization of the Association.

The U.S. Railway Association is an incorporated non-profit association established by the Regional Rail Reorganization Act of 1973 (Pub. L. 93-236; 87 Stat. 985; 45 U.S.C. 701, *et seq.*). To the extent not inconsistent with that Act, it is subject to the District of Columbia Non-profit Corporation Act (D.C. Code 29-10001, *et seq.*) and its status is that of a government corporation of the District of Columbia.

(b) The Association is organized as follows:

(1) The Board of Directors directs and manages the affairs of the Association.

(2) The Chairman presides over the Board of Directors, and is the chief executive officer, he is assisted by the Secretary, who performs corporate secretary functions and provides direct staff support to the Chairman.

(3) The Executive Vice President is the chief operating officer.

(4) The General Counsel is the chief legal officer.

§ 901.3 Rulemaking procedures.

The Association is not subject to the rule-making procedural requirements of section 553 of title 5, U.S.C. The Association will, nevertheless, as it considers appropriate, publish notices of proposed rule-making in the **FEDERAL REGISTER**; invite and consider com-

ments and requests for extension of time; and keep public dockets. It will also publish its procedural rules, substantive rules, general policies, and general interpretations in the **FEDERAL REGISTER**. When a notice of proposed rule-making is issued, the specific applicable procedures will be described in the notice.

§ 901.4 Public availability of information.

(a) Subject to appeal to the Executive Vice President as provided in this section, the Office of Public Affairs is responsible for administering this section.

(b) No such request for inspection or a copy of a document shall be denied except upon the written decision of the Vice President for Public and Governmental Affairs that:

(1) The request may properly be denied under the Freedom of Information Act; and

(2) Another law, private rights, or the public interest clearly requires the denial.

Each denial decision will set forth the reasons therefor and describes the appeal from that decision that is available to the requester.

(c) A decision denying access to a document may be appealed to the President by filing with his office a written notice of appeal, within 30 days after the date of the denial under paragraph (d) of this section, specifying the relevant facts and the basis for the appeal. If the President denies the appeal, the denial shall set forth the reasons therefor and describe the rights of judicial appeal available to the requester.

(d) Requested documents shall be made available, or a written decision denying the request furnished, within 10 working days after the date the request is received. An appeal to the President shall be decided within 20 working days after the date the notice of appeal is filed. The time may be extended in unusual cases but for not more than a total of 10 working days. Saturdays, Sundays and Federal Holidays are not considered to be working days.

(e) The fee for photocopies of documents ordered from the Association

shall be \$0.25 for the first page and \$.05 for each additional page for each document. The fee for copies of material requiring other methods of reproduction is the cost of reproduction and handling. The fee for routine searches for documents is \$2. The fee for searches requiring longer than 30 minutes and for other non-routine services is the actual cost. Fees are payable only in cash or by check or money order payable to the U.S. Railway Association. Fees may be waived or reduced at the discretion of the Office of Public Affairs, if it considers it to be in the public interest because furnishing the information will benefit the general public.

**PART 903—GOVERNMENT IN THE
SUNSHINE ACT REGULATIONS**

- Sec.
903.1 Purpose and scope.
903.2 Definitions.
903.3 Open meeting policy.
903.4 Scheduling and public announcement of meetings.
903.5 Public announcement of changes in meetings.
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AUTHORITY: Subsec. (g), Government in the Sunshine Act (5 U.S.C. 552b(g); subsec. 202(a)(4), Regional Rail Reorganization Act of 1973, as amended (45 U.S.C. 712(a)(4)).

SOURCE: 42 FR 14113, Mar. 15, 1977, unless otherwise noted.

§ 903.1 Purpose and scope.

(a) Section 552b of title 5, U.S.C., the Government in the Sunshine Act ("the Act") requires each agency to open every portion of every meeting to public observation and to make avail-

able to the public any information pertaining to such meetings required by section 552b to be disclosed to the public, except where the agency properly determines that such portion or portions of its meeting or the disclosure of such information is exempt under section 552b(c) of the Act.

(b) This part sets forth the Association's procedures for implementing the Act with respect to meetings of its Board of Directors, Executive Committee, or other committees of the Board of Directors, except the Finance Committee which, as authorized by section 201 of the Regional Rail Reorganization Act of 1973, as amended (45 U.S.C. 711), issues separate regulations to permit public attendance at open meetings (see 49 CFR Part 905).

§ 903.2 Definitions.

Unless otherwise required by the context, the following definitions apply in this part:

"Act" means the Government in the Sunshine Act (5 U.S.C. 552b).

"Association" means the U.S. Railway Association.

"Board of Directors" means the Board of Directors of the Association, established by section 201 of the Regional Rail Reorganization Act of 1973, as amended, 45 U.S.C. 711, and includes the Executive Committee established thereunder, and any other Committee of the Board of Directors except the Finance Committee.

"Meeting" means the deliberation of at least the number of individual members of the Board of Directors whose deliberations determine or result in the joint conduct or disposition of official Association business, but does not include deliberations required or permitted by section 552b (d) or (e) of the Act.

§ 903.3 Open meeting policy.

It is the policy of the Association that meetings are presumptively open to public observation to the fullest extent consistent with the protection of individual rights and the Association's obligation to carry out its responsibilities and duties. A meeting, portion of a meeting, or series of meetings will not be closed to public obser-

vation unless the Board of Directors determines specifically, pursuant to § 903.7, both that the subject matter is exempt from the open meeting requirements of the Act and that the public interest does not require opening. No information pertaining to the meeting shall be withheld unless the Board of Directors determines specifically pursuant to § 903.7, both that the information is exempt from disclosure and that the public interest does not require disclosure.

§ 903.4 Scheduling and public announcement of meetings.

(a) Except as provided in §§ 903.5 and 903.6 of this part, the Board of Directors will make a public announcement at least one week before a meeting it has scheduled. The announcement will include a statement of:

(1) The time, place, and subject matter of the meeting;

(2) Whether the meeting is open or closed to the public; and

(3) The name and telephone number of the Association official who will respond to requests for information about the meeting.

(b) If announcement of the subject matter of a closed meeting would reveal the information that the meeting itself was closed to protect, the subject matter of the meeting will not be announced.

§ 903.5 Public announcement of changes in meetings.

(a) After public announcement of a meeting, the time and place of the meeting will be changed only if the change is publicly announced at the earliest practicable time.

(b) After public announcement of a meeting, the subject matter of a meeting or the determination to open or close a meeting or portion of a meeting to the public will be changed only:

(1) Upon the recorded vote of a majority of the membership of the Board of Directors that Association business required the change and that no earlier announcement was possible; and

(2) Upon a public announcement at the earliest practicable time of the change and of the vote of each member.

§ 903.6 Public announcement of emergency meetings.

When an emergency or extraordinary Association business so requires, the Board of Directors may decide, upon a recorded vote of a majority of its members, to schedule a meeting for a date earlier than provided in paragraph (a) of § 903.4 and shall, at the earliest practicable time, make a public announcement pursuant to the procedures in § 903.4.

§ 903.7 Cases in which a meeting may be closed and information may be withheld.

(a) A meeting, portion or portions of a meeting, or series of meetings may be closed to public observation and information pertaining to such meeting or meetings may be withheld from the public when the Board of Directors determines that the meeting or disclosure of that information, is likely to:

(1) Disclose matters that are (i) specifically authorized under criteria established by an Executive Order to be kept secret in the interests of national defense or foreign policy and (ii) in fact properly classified pursuant to such Executive Order;

(2) Relate solely to the internal personnel rules and practices of the Association;

(3) Disclose matters specifically exempted from disclosure by statute (other than section 552 of title 5, U.S.C.), *Provided That* such statute (i) requires that the matters be withheld from the public in such a manner as to leave no discretion on the issue, or (ii) establishes particular criteria for withholding or refers to particular types of matters to be withheld;

(4) Disclose trade secrets and commercial or financial information obtained from a person and privileged or confidential;

(5) Involve accusing any person of a crime, or formally censuring any person;

(6) Disclose information of a personal nature where disclosure would constitute a clearly unwarranted invasion of personal privacy;

(7) Disclose investigatory records compiled for law enforcement purposes, or information which if written

would be contained in such records, but only to the extent that the production of such records or information would (i) interfere with enforcement proceedings, (ii) deprive a person of a right to a fair trial or an impartial adjudication, (iii) constitute an unwarranted invasion of personal privacy, (iv) disclose the identity of a confidential source and, in the case of a record compiled by a criminal law enforcement authority in the course of a criminal investigation, or by an agency conducting a lawful national security intelligence investigation, confidential information furnished only by the confidential source, (v) disclose investigative techniques and procedures, or (vi) endanger the life or physical safety of law enforcement personnel;

(8) Disclose information contained in or related to examination, operation, or condition reports prepared by, on behalf of, or for the use of an agency responsible for the regulation or supervision of financial institutions;

(9) Disclose information the premature disclosure of which would:

(i) In the case of an action by the Association involving regulation of currencies, securities, commodities, or financial institutions, be likely to (A) lead to significant financial speculation in currencies, securities, or commodities, or (B) significantly endanger the stability of any financial institution; or

(ii) Be likely significantly to frustrate implementation of a proposed Association action, except that this paragraph (a)(9)(ii) shall not apply in any instance where the Association has already disclosed to the public the content or nature of its proposed action, or where the Association is required by law to make such disclosure on its own initiative prior to taking final Association action on such proposal; or

(10) Specifically concern the Association's issuance of a subpoena, or its participation in a civil action or proceeding, an action in a foreign court or international tribunal, or an arbitration, or the initiation, conduct, or disposition by it of a particular case of formal adjudication pursuant to the procedures in section 554 of Title 5, U.S.C. or otherwise involving a deter-

mination on the record after opportunity for a hearing.

(b) Where the Board of Directors has determined that a meeting, portion or portions thereof or a series of meetings may be closed or that any information related thereto may be withheld pursuant to § 903.7(a) of these regulations, the Board of Directors shall also determine whether the public interest nevertheless requires that the meeting be open or the information be disclosed to the public.

§ 903.8 Procedures for closing meetings and withholding information; public availability of recorded vote to close meetings and other information.

(a) The Board of Directors may decide to close a meeting, or a portion thereof, or to withhold information pertaining thereto, only upon the affirmative vote of a majority of its entire membership. A separate vote of the members will be taken with respect to each Association meeting, a portion or portions of which are proposed to be closed or with respect to any information which is proposed to be withheld under § 903.7.

(b) A single vote may be taken with respect to a series of meetings, all or portion of which are proposed to be closed to public observation, or with respect to any information concerning the series of meetings, if each meeting in the series involves the same matters and is scheduled to be held not more than 30 days after the first meeting in the series.

(c) Proxy votes are not allowed under this section.

(d) A written copy of any vote taken pursuant to § 903.7 to close a meeting, or portion thereof, reflecting the vote of each member in the Board of Directors on the question, shall be made publicly available within one day of such vote. The vote of each member of the Board of Directors to close a meeting, or portion thereof, must be made publicly available whether or not the vote results in closing the meeting.

(e) If a decision is made to close a meeting, portion of a meeting, or series of meetings, the Association will prepare a full written explanation of the closure action together with a list

of the names of persons expected to attend and stating the affiliation of each of those persons, and shall make such explanation publicly available within one day of that decision.

(f) If the disclosure of information required in § 903.8 (d) or (e) or in § 903.10(b) would reveal the information that the meeting was closed to protect, such information will not be disclosed.

§ 903.9 Certification by General Counsel.

(a) In each case that the Board of Directors has voted to close a meeting portion of a meeting, or series of meetings, the General Counsel of the Association shall, before the meeting or portion of meeting is closed, publicly certify that, in his opinion, the meeting may be closed to the public and the relevant provision of § 903.7(a) under which it may be closed.

(b) The Secretary of the association will retain a copy of each certification under this section, together with a statement of the presiding officer of the meeting setting forth the time and place of the meeting and listing the persons present.

§ 903.10 Requests by affected persons for closed meetings.

(a) Whenever a person whose interest may be directly affected by a meeting, portion of a meeting, or series of meetings requests closure for a reason stated in § 903.7(a) (5), (6), or (7), the Board of Directors shall upon the motion of any of its members, decide by recorded vote whether to grant that request.

(b) If a closure decision is made, the Association shall prepare a full written explanation of the action, a list of the persons expected to attend the meeting or meetings, and a statement of the affiliation of each of those persons and shall make such explanation and a copy of the recorded vote publicly available within one day of that decision.

§ 903.11 Providing information to the public.

(a) Information available to the public in accordance with this part will be posted in the Office of Public

Affairs, Suite 7200, 955 L'Enfant Plaza North, SW., Washington, DC 20595. Such information may also be made available through a list maintained for members of the public desiring to receive such information.

(b) A person or organization may obtain copies of information from the Office of Public Affairs, Suite 7200, 955 L'Enfant Plaza North SW., Washington, DC 20595.

(50 FR 39016, Sept. 26, 1985)

§ 903.12 Publication of notice in the Federal Register.

Immediately after each public announcement required by this part, the Association will submit the substance of that announcement for publication in the **FEDERAL REGISTER** provided, however, that this section shall not apply to public explanations issued pursuant to §§ 903.8 (d) and (e) and 903.10(b).

§ 903.13 Meeting places.

Each meeting to which this part applies will be held in a meeting room designated in the public announcement of that meeting.

§ 903.14 Procedures for open meetings.

(a) A member of the public may attend an open meeting for the purpose of observation. The opening of a portion or portions of a meeting to public observation shall not be construed to include any participation by the public in any matter at the meeting.

(b) When a meeting is partly closed, each observer shall leave the meeting, upon request, when the time for the discussion of the exempted matter arrives.

§ 903.15 Records of closed meetings.

(a) The Secretary of the Association shall retain a record of each meeting or portion thereof that is closed pursuant to this part for two years or until one year after the conclusion of the proceeding with respect to which such meeting or portion thereof was held, whichever occurs later. The record may be a recording or a transcript, or in the case of a closure pursuant to

§ 903.7(a) (8), (9)(IXA), or (10), minutes, a recording or transcript.

(b) In a case where minutes are used, the minutes will fully and clearly describe all matters discussed and a full and accurate summary of the actions taken, with the reasons therefor, including a description of each view expressed on any item and a record of each rollcall vote, reflecting the vote of each member. The minutes shall identify all documents considered in connection with any action.

§ 903.16 Availability of records to the public.

(a) The Association will promptly make available to the public, the transcript, recording, or minutes of each closed meeting, portion of a meeting, or series of meetings, except for information that may be withheld under § 903.7(a), at the actual cost of the duplication or transcription.

(b) The nonexempt parts of transcripts, recordings or minutes are retained in the custody of the Secretary of the Association. Facilities are available for the review of those records.

(c) Each request for copy of a non-exempt part of a transcript, recording or minutes must be made to the Secretary of the Association, Suite 7200, 955 L'Enfant Plaza North, SW., Washington, D.C. 20595. The request must:

- (1) Identify the record sought; and
- (2) Include a statement that the costs involved will be accepted by the requester or set forth the amount up to which the requester will accept the costs.

[42 FR 14113, Mar. 15, 1977, as amended at 50 FR 39016, Sept. 26, 1985]

PART 932—USRA RULES FOR ACCESS TO SYSTEMS OF RECORDS UNDER THE PRIVACY ACT OF 1974

Sec.

- 932.1 Purpose and scope.
- 932.2 Definitions.
- 932.3 Conditions of disclosure.
- 932.4 Accounting of disclosures.
- 932.5 Requests for access.
- 932.6 Procedure for access.
- 932.7 Disclosure.
- 932.8 Request for correction or amendment.

Sec.

- 932.9 Procedure for correction or amendment.
- 932.10 Request for review of refusal to correct or amend.
- 932.11 Disclosure to another person.
- 932.12 Exemptions.
- 932.13 Fees.
- 932.14 Penalties.

AUTHORITY: Pub. L. 93-579; 88 Stat. 1896; 5 U.S.C. 552a.

SOURCE: 40 FR 45734, Oct. 2, 1975, unless otherwise noted.

§ 932.1 Purpose and scope.

The purpose of this part is to implement provisions of 5 U.S.C. 552a with respect to the availability of records relating to individuals maintained in a system of records by the U.S. Railway Association, whether the records pre-date or postdate September 27, 1975, the effective date set forth in section 8 of the Privacy Act of 1974 (Act). USRA policy encompasses the safeguarding of individual privacy from any misuse of records maintained by the Association and the provision of access to such records by the individuals identified therein, except where such access is in conflict with the Freedom of Information Act or other statute.

§ 932.2 Definitions.

In this part:

- (a) Access means the ability to obtain the information contained in a record.
- (b) Amendment means modification or correction of the information contained in a record.
- (c) Association means the U.S. Railway Association.
- (d) Disclosure means providing to an individual or agency (other than those authorized access as a routine use) the content or any part of the information contained in a record, whether by word-of-mouth, hard copy, or any other form.
- (e) Individuals means all persons on whom the Association keeps records, including its employees, consultants, employees of consultants, employees of railroads in reorganization, and any other individuals on whom USRA maintains information.

(f) Record means any item, collection, or grouping of information about an individual that is maintained in a system of records by USRA and that contains his name, or identifying number, symbol, or other identifying particular assigned to the individual.

(g) Routine Use means with respect to the disclosure of a record, the use of such record for a purpose which is compatible with the purpose for which it was collected.

(h) Statistical Record means a record in a system of records maintained for statistical research or reporting purposes only and not used in whole or in part in making any determination about an identifiable individual, except as provided by section 8 of Title 13.

(i) System of Records means a group of records under the control of USRA from which information is retrievable by the name of the individual, or by some identifying number, symbol, or other identifying particular assigned to the individual.

§ 932.3 Conditions of disclosure.

(a) Subject to the conditions of paragraphs (b) and (c) of this section, USRA shall not disclose any record which is contained in a system of records, by any means of communication to any person or other agency who is not an individual to whom the record pertains.

(b) Upon written request or with prior written consent of the individual to whom the record pertains, USRA may disclose any such record to any person or other agency.

(c) In the absence of a written consent from the individual to whom the record pertains, USRA may disclose any such record provided such disclosure is:

(1) To those officers and employees of USRA who have a need for the record in the performance of their duties;

(2) Required under the Freedom of Information Act (5 U.S.C. 552);

(3) For a routine use;

(4) To the Bureau of Census for purposes of planning for carrying out a census or survey or related activity under the provisions of title 13 of the U.S.C.

(5) To a recipient who has provided USRA with adequate advance written assurance that the record will be used solely as a statistical research or reporting record, and the record is to be transferred in a form that is not individually identifiable;

(6) To the National Archives of the United States as a record which has sufficient historical or other value to warrant its continued preservation by the United States government, or for evaluation by the Administrator of General Services or his designee to determine whether the record has such value;

(7) To another agency or to an instrumentality of any governmental jurisdiction within or under the control of the United States for a civil or criminal law enforcement activity authorized by law: *Provided*, The head of the agency or instrumentality has made a prior written request to the Vice President for Administration of USRA specifying the particular record and the law enforcement activity for which it is sought;

(8) To either House of Congress, and to the extent of a matter within its jurisdiction, any committee or subcommittee or joint committee of Congress;

(9) To the Comptroller General, or any of his authorized representatives in the course of the performance of the duties of the GAO; or

(10) Under an order of a court of competent jurisdiction.

§ 932.4 Accounting of disclosures.

(a) The Vice President for Administration of USRA shall make an accounting of each disclosure by him of any record contained in a system of records in accordance with 5 U.S.C.A. (c) (1) and (2).

(b) Except for a disclosure made under § 932.5(c)(7), the Vice President for Administration shall make the accounting described in paragraph (a) of this section available to any individual upon written request made in accordance with § 932.5.

(c) The Vice President for Administration shall make reasonable efforts to notify an individual when any record which pertains to him is disclosed to any person under compulsory

legal process when such process becomes a matter of public record.

§ 932.5 Requests for access.

Interested individuals may request that a determination be made as to whether a system of records in USRA contains a record pertaining to them and/or may request disclosure to them of the information pertaining to them in such records by sending a signed, written request, so stating, to:

U.S. Railway Association, Suite 7300, 955 L'Enfant Plaza North, SW, Washington, DC 20595.

Each request must contain the name and address of the individual and the name of the system of records, as published in the FEDERAL REGISTER or elsewhere, on which the determination is to be made. The individual may be asked to provide additional information to assist USRA in making the determination. However, making the determination will not be contingent upon the provisions of such additional information.

[40 FR 45734, Oct. 2, 1975, as amended at 50 FR 39016, Sept. 26, 1985]

§ 932.6 Procedure for access.

USRA will respond to such requests within ten days, excluding Saturdays, Sundays, and holidays, and, if disclosure to the individual was requested, specify the time and place where the disclosure is to be made, the requirements for identification of the individual making the request, and the name of the individual in USRA to contact. The individual may be accompanied by another individual of his or her choosing: *Provided*, That the individual requesting the disclosure provides a written statement to USRA authorizing the accompanying individual's presence. The time and place of disclosure will normally be during regular working hours, Monday through Friday, in USRA, 2100 Second Street, SW., Washington, D.C. 20595. Requirements for identification will normally be limited to the presentation of any standard picture and signature or signature identification card, such as driver's license, so that a comparison of the signature and the signature on the original request may be made. The

appearing individual will be read paragraph (3), subsection (i) to title 5 USRA 552a which specifies the penalty for knowingly or willfully requesting or obtaining a record concerning an individual from an agency under false pretenses and asked to sign a statement attesting to the fact that he or she understands the paragraph and that he or she is, in fact, the individual who made the request (or the individual authorized to receive the disclosure by the requesting individual). This signature will be compared with the other two. If the appearing individual is other than the requesting individual, then he or she must also present a letter of introduction signed by the requesting individual so that the comparison of signature may be made.

§ 932.7 Disclosure.

USRA will, upon approving a request for disclosure, provide that individual, at the time and place agreed upon, whatever information pertaining to the individual the system of records contains. If the information in the system of records can be verified as pertaining to the individual making the request and to no other, USRA will mail a copy of such information to the individual if requested in writing to do so. The requesting individual may request that the disclosure be made to some other individual at the designated time and place by doing so in writing and providing to USRA the name, address and such other information as may be necessary to identify positively the individual to whom the disclosure is to be made at his or her appearance (See § 932.4).

§ 932.8 Request for correction or amendment.

The individual to whom the record pertains may request that the record be corrected or amended by submitting a written request to this effect to the same address as given in § 932.5. The request should contain the same identifying information as was contained in the original request for determination, and indicate what information is to be corrected or amended.

§ 932.9 Procedure for correction or amendment.

USRA will respond within ten days, excluding Saturdays, Sundays, and Holidays, and promptly either make the requested correction or amendment or inform the individual of its refusal to make the requested correction or amendment, the reason for the refusal, the procedures established by USRA for the individual to request a review of that refusal by the President of USRA or an officer designated by the president of USRA and the name and business address of that official.

§ 932.10 Request for review of refusal to correct or amend.

USRA will permit the individual who disagrees with the refusal to amend his record to request a review of such refusal and not later than 30 days, excluding Saturdays, Sundays, and Holidays, from the date on which the individual requests such review, complete such review and make a final determination unless, for good cause shown, the President of USRA extends such 30-day period; and if after his review, the reviewing official also refuses to amend the record in accordance with the request, permit the individual to file a concise statement setting forth the reasons for his disagreement. In that event, the reviewing official shall notify the individual of the

provisions for judicial review of his determination under subsection (g)(1)(A) of the Privacy Act. Assistance may be obtained in preparing a request to amend a record or to appeal an initial adverse determination or to learn of the provision for judicial review from the U.S. Railway Association, Suite 7200, 955 L'Enfant Plaza North, SW, Washington, DC 20595.

[40 FR 45734, Oct. 2, 1975, as amended at 50 FR 39016, Sept. 26, 1985]

§ 932.11 Disclosure to another person.

Disclosure of a record to a person other than the individual to whom it pertains will be permitted according to §§ 932.6 and 932.7.

§ 932.12 Exemptions.

The regulations reserve to the President of the Association the right to create exemptions pursuant to the specific exemption provisions of the Act.

§ 932.13 Fees.

One copy of the requested information will be provided without charge. If requested, additional copies will be provided at a fee of \$0.15 per page.

§ 932.14 Penalties.

Only those penalties imposed by the Privacy Act or other public law will apply.

FINDING AIDS

A list of CFR titles, subtitles, chapters, subchapters and parts and an alphabetical list of agencies publishing in the CFR are included in the CFR index and Finding Aids volume to the Code of Federal Regulations which is published separately and revised annually.

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40 CFR CHAPTER V (PARTS 500-599)

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

All materials are available from the Office of Rulemaking, DOT-NHTSA, 400 7th St., SW., Washington, DC 20590

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Post Office Box 886, Durham, NC

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American National Standards Institute

1430 Broadway, New York, NY 10018

ANSI Z26.1 as suppl. Z26.1a-69 Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways.	571.205
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American Society for Testing and Materials (ASTM)

1916 Race St., Philadelphia, PA 19103

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